



# Coherent Optical Modules & DCI BOX Solution

High Bandwidth | High Capacity | Compact  
Rich Port | Super Long Transmission



## Shenzhen Gigalight Technology Co., Ltd.

Address: 17F, Zhongtai Tiancheng Building, Shenzhen  
Tel: +86-755-2673-4300  
Fax: +86-755-2673-8181  
Email: sales@gigalight.com  
Website: www.gigalight.com

R&D and Factory: Building F3 & F4, Changfeng Industrial Park, Shenzhen  
Zip code: 518101  
Tel: +86-755-2682-1500  
Fax: +86-755-2668-7580  
Technical Support: tech@gigalight.com  
Customer Service: rma@gigalight.com

VN: YFY-XGZXT-230413

## Company Profile



### Who We Are

Founded in 2006, GIGALIGHT is an enterprise with outstanding brand influence in the field of global optical communications, positioned as a technology innovator and market explorer in the field of open optical networks.

GIGALIGHT's business focuses on developing decoupled optical network modules and subsystems to reduce CAPEX and OPEX for data centers and telecom operators. Since its establishment, the company has actively cooperated with global operators to realize the interconnection of optical networks, and has been widely recognized as a veritable advocate and leader of open optical interconnection middleware.

### What We Do

In recent years, the company has continued to develop silicon photonics technology and silicon-based coherent communication technology, aiming to further promote the optical layer opening and interface compatibility of open optical networks through these new technologies, and has made good progress. (Note: GIGALIGHT is a member of the OpenZR+ MSA team.)

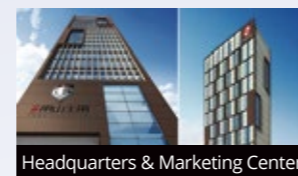
Aiming to become a one-stop device integration solution provider in the field of open optical networks, GIGALIGHT has launched many active and passive products to meet the needs of various types of interconnections and interfaces in open optical networks (especially open data centers)—optical transceivers, active optical cables (AOC), direct-attached copper cables (DAC), silicon photonics optical transceivers, liquid-cooling optical transceivers, high-definition video optical modules, coherent optical modules and coherent transmission subsystems, active/passive WDMs, passive optical access devices and high-density cabling, etc.

### Our Goal

The development of GIGALIGHT benefits from more than 300 small and medium-sized customers around the world, who promote the growth of the company and the progress of employees. In order to give back to customers, GIGALIGHT takes the continuous development of new technologies and the creation of ultra-compatible optical network middleware and subsystems for the open optical network as the company's unswerving goal.

To achieve this goal, GIGALIGHT has built a series of technology platforms, including software and hardware design and high-speed signal integrity platform, COB hybrid packaging technology platform, silicon-based optoelectronic chip design and packaging platform, and COM-based computing and management of multi-channel DAC manufacturing platform, as well as a coherent optical communication technology platform with self-developed algorithms, etc. The company has a world-class compatibility testing laboratory in the field of optoelectronics.

## Office Locations



Headquarters & Marketing Center



R&D, Operations and Sales center



Wuhan Technology Center

**Shenzhen Headquarters (Finance & Marketing):** 17th Floor, Zhongtai Tiancheng Building

**Shenzhen R&D Center:** Changfeng Industrial Park

**Wuhan R&D Center:** Optics Valley New Power Industrial Park

**Suzhou R&D Center:** Suzhou International Science and Technology Park

**Shenzhen Factory:** Changfeng Industrial Park

**Jiangsu yancheng Factory:** 1 Phase 1 of Smart Terminal Industrial Park

**Global Sales Office:** Shenzhen, Beijing, Shanghai, Yancheng, Russia, Singapore, Brazil



Metro DWDM & Coherent Communications

5G Carrier Network

Data Center & Server



### Corporate Mission

Serving open data center and open optical communication markets.



### Corporate Vision

Create every unusual GIGALIGHT in every corner of the optical network.  
Undertake every interconnection task in every node of the optical network.



### Corporate Strategy

Carry out the principles of integration and differentiation.



### Corporate Purpose

Keep providing high-speed optical interconnection products of innovative design and simplest scheme.



### Quality Policy

Quality enhances the brand, and the brand leads the future.  
Improve quality and gallop in the optical communication industry.  
Lean quality management and refine customer needs.  
Build core competitiveness and achieve ideal company.

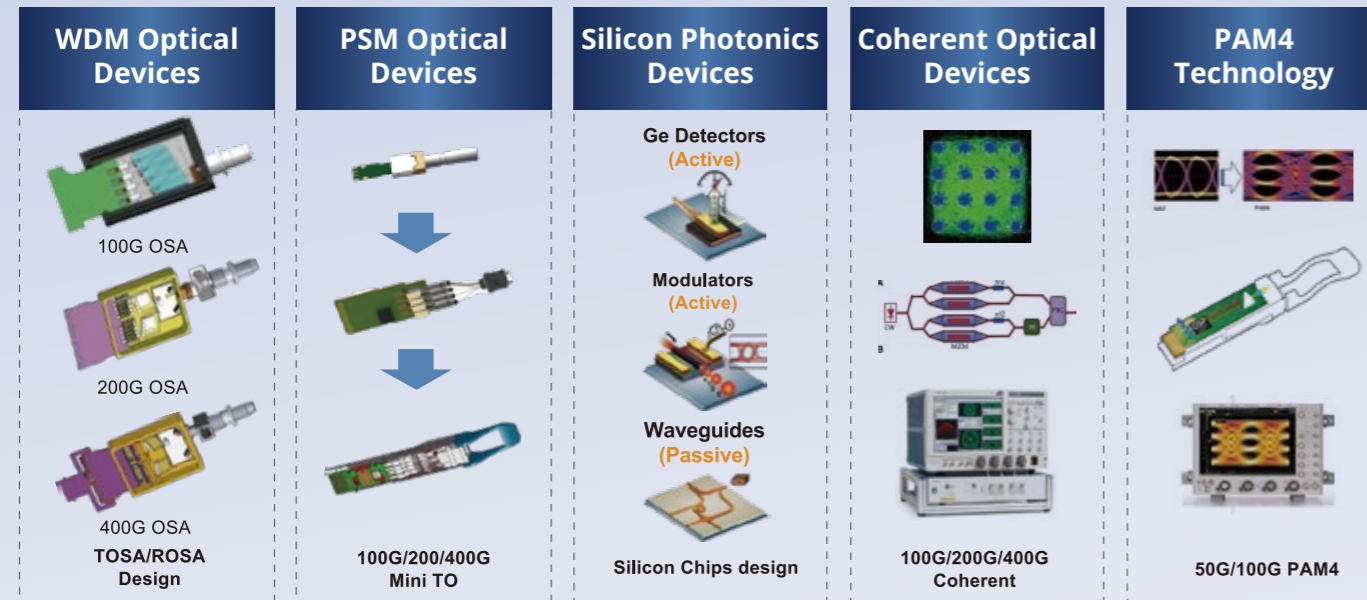
## Core Competencies

### Rich Portfolios to Provide Integrated Solutions for Global Markets

After more than ten years of development, we have built a rich product line of active & passive optical network devices, including optical transceivers and coherent transmission subsystems, etc., which can meet the needs of various interconnection application scenarios such as data centers and 5G. The company is now fully equipped to provide and deliver low-cost one-stop integrated solutions for global telecom operators and small and medium data center customers.

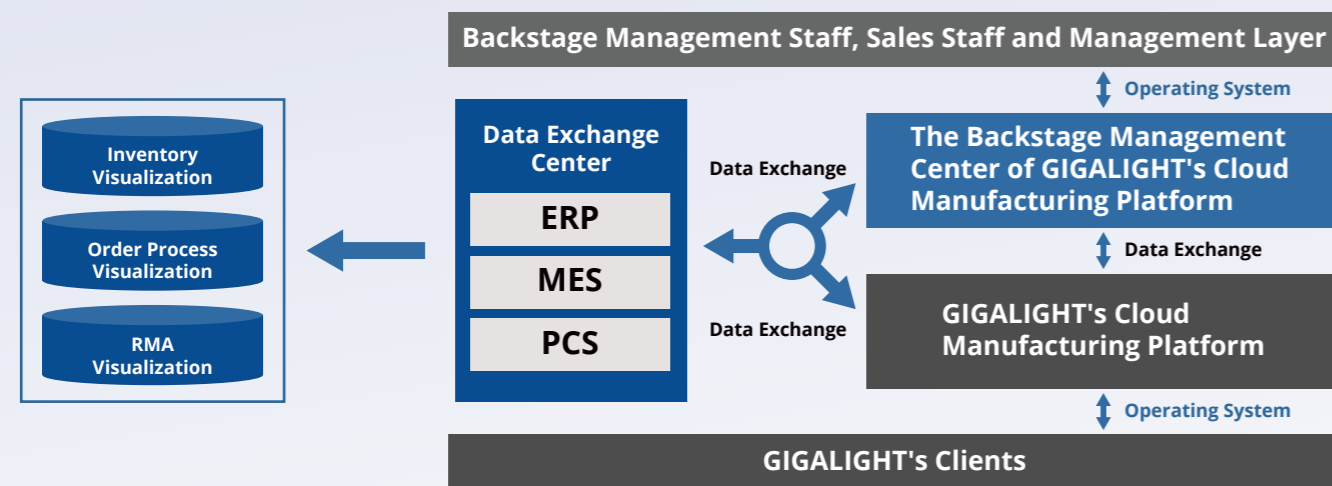
### Reliable Technologies & Platforms to Ensure Differentiation

The parallel light engine & WDM light engine based on traditional III-V family, 8-channel optics, silicon photonics (light source, light engine, software algorithm, module packaging), software & hardware coherent optics, liquid-cooling optics, high-definition video optics, high-speed DAC automated assembly and testing platform, passive micro optics packaging and other technologies or platforms are the guarantee for GIGALIGHT to provide customers with differentiated products and technologies.



### Advanced Cloud Manufacturing System to Enable Visual Production

We have independently developed an advanced cloud manufacturing system that integrates our manufacturing execution system (MES), electronic panel manufacturing system, automatic adjustment test system (designed for transceiver optics) and an order inventory visualization system to achieve visual customization and management of production for our customers.



### Strong Compatibility & Innovative Ecosystem to Improve Experience

We have been researching open optical network and established a laboratory to study its compatibility issues, which contributed great value to the low cost and convenience of network construction. On the basis of open, we have gradually developed and built an innovative ecosystem, integrating a cloud programming platform (interacted with our cloud server for online coding, testing and information query), a remote firmware upgrade system, and a series of open checkers. We are also building a VIP online system to improve customers' experience.

# CONTENTS

## Coherent Optical Modules

100G CFP DCO	01
100G/200G CFP2 DCO	01
400G CFP2 DCO	02
400G QSFP-DD ZR/ZR+	02

## DCI BOX

2U 6.4T DCI BOX 2.0	03
1U 800G DCI DWDM Smart BOX	05
1U 800G DCI BOX 1.0	06
1U 1.6T DCI BOX	07

## Optical Layer Systems

Optical Transport Platform	09
Smart Optical Line System	11
Rack Mount Passive DWDM MUX DEMUX (100GHz 48CH, 75GHz 64CH, 50GHz 96CH)	12

## User Cases

User Instances	13
Single Lambda 200G DWDM Coherent 80km	13
Single Lambda 200G DWDM Coherent 600km (Standard Multi-span)	14
Single Lambda 200G DWDM Coherent 200km (Ultra-long Single-span)	14

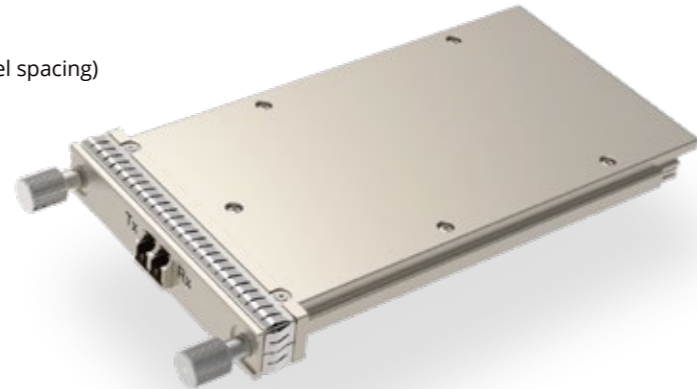
# Coherent Optical Modules

## 100G CFP DCO

GIGALIGHT's 100G CFP DCO digital coherent optical transceiver modules are designed for 100G Ethernet and OTN OTU4 links reach up to 120km, 600km, and 1200km.

### Features

- Hot-pluggable CFP form factor
- Full C-band tunable ultra-narrow linewidth laser (50GHz channel spacing)
- Built-in EDFA optional (-15 to +2dBm adjustable TX power)
- 100G DP-QPSK modulation mode
- Integrated silicon photonics modulator & demodulator
- 100GE/OLT4 client interface
- 29W maximum power consumption (LH mode, built-in EDFA)
- 13dB/0.1nm RX OSNR tolerance (LH mode, BER 2E-2)
- 40000ps/nm CD tolerance (LH mode)
- Duplex LC receptacle
- 0°C to 70°C operating case temperature range
- 3.3V power supply voltage
- RoHS compliant (lead free)



## 400G CFP2 DCO

GIGALIGHT's 400G CFP2 DCO digital coherent optical transceiver modules are designed for 100G/200G/400G Ethernet and OTN links, meeting the demands of high-bandwidth data center interconnection (DCI) applications.

### Features

- Hot-pluggable CFP2 form factor
- Full C-band tunable ultra-narrow linewidth laser (75GHz channel spacing)
- 400G DP-16QAM modulation mode
- Integrated silicon photonics modulator & demodulator
- 22W typical (24W maximum) power consumption (100G/200G mode)
- 22dB/0.1nm RX OSNR tolerance (400G DP-16QAM)
- Duplex LC receptacle
- 0°C to 70°C operating case temperature range
- 3.3V power supply voltage
- RoHS compliant (lead free)



## 100G/200G CFP2 DCO

GIGALIGHT's 100G/200G CFP2 DCO digital coherent optical transceiver modules are designed for 100G Ethernet and OTN OTU4 links reach up to 120km, 600km, and 1200km.

### Features

- Hot-pluggable CFP2 form factor
- Full C-band tunable ultra-narrow linewidth laser (50GHz channel spacing)
- -6.5 to +0.5dBm adjustable TX power
- 100G DP-QPSK or 200G DP-16QAM modulation mode
- Integrated silicon photonics modulator & demodulator
- 100GE/OLT4 client interface
- 22W typical (24W maximum) power consumption (100G/200G mode)
- 12.5dB/0.1nm RX OSNR tolerance (100G LH mode, BER 2E-2)
- 18.5dB/0.1nm RX OSNR tolerance (200G DP-16QAM, BER 2E-2)
- 40000ps/nm CD tolerance (100G/200G mode)
- Duplex LC receptacle
- 0°C to 70°C operating case temperature range
- 3.3V power supply voltage
- RoHS compliant (lead free)

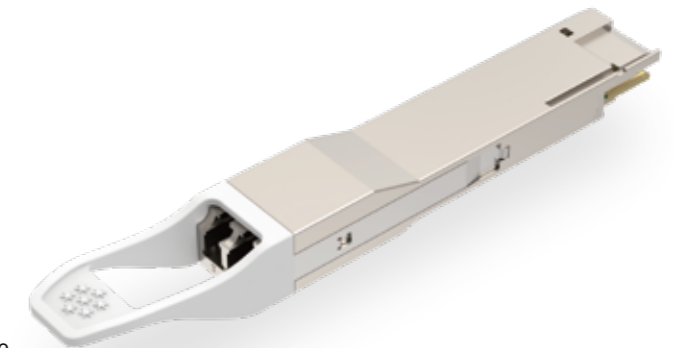


## 400G QSFP-DD ZR/ZR+

The GIGALIGHT 400G QSFP-DD DCO ZR/ZR+ modules support 400GE and OTN links reach up to 80km/120km or 600km and more. It operates on full C-band DWDM wavelengths with 75GHz (up to 64 channels) or 100GHz (up to 48 channels) channel spacing, and is ideal for long-haul metro DCI and 5G backhaul applications.

### Features

- QSFP-DD MSA compliant
- OIF 400ZR or OpenZR+ MSA compliant
- Built-in digital diagnostic monitoring function
- Hot-pluggable 76-pin electrical interface
- 16.5W maximum power consumption
- 400G 16QAM modulation
- Compact size (18.4mm x 93.4mm x 8.5mm)
- Duplex LC optical interface
- Supports 425Gbps 400GBASE-R rate
- 400G-AUI-8 C2M, 8xCEI-56G-VSR PAM-4 electrical interface
- Commercial case operating temperature range
- 3.3V power supply
- Compliant with RoHS (lead-free)



# DCI BOX

## 2U 6.4T DCI BOX 2.0

The GIGALIGHT 2U 6.4T DCI BOX 2.0 is an open coherent DWDM optical transport platform for data center interconnect (DCI) and metro optical transmission applications.



### Features

- 2U chassis including both optical-layer and electrical-layer cards to save space and facilitates capacity expansion
- Front-to-back heat dissipation design with multiple sets of high-speed fans to ensure excellent heat dissipation performance
- Optional with optical layer cards such as EDFA, WSS and OLP etc.
- Optional with electrical layer cards such as 100G OTU, 200G OTU and 400G OTU
- Up to 6.4T bandwidth for total 2U chassis
- Supports SNMP/Netconf, CLI/Web/BS, dual-master backup and OSC communication

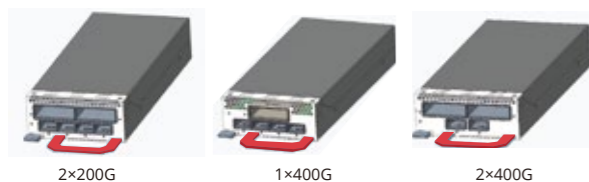
### Features

Parameters	Specifications
Client-side Rate	400GE/100GE/OTU4 or 10GE/OC-192/STM-64/8GFC/10GFC/16GFC
Line-side Rate	100G/200G/400G
RODAM Dimension	9
Power Consumption	≤300W
Dimensions(W×H×D)	440mm×88mm×420mm
Power Supply	AC(90V to 264V, 50/60HZ),DC(-36V to +60V)

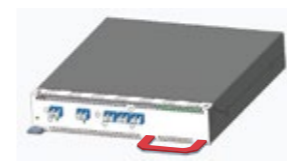
### OTU Card

#### Features

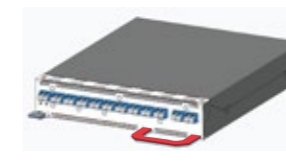
Access Signal Rate	Client-side Interface	Line-side Interface	Power Consumption
100/112Gbps	4×100G QSFP28	2×200G CFP2 DCO	≤75W
100/112Gbps	4×100G QSFP28	1×400G CFP2 DCO	≤68W
400Gbps	2×400G QSFP-DD	2×400G CFP2 DCO	≤135W



### Optical Layer Service Cards



EDFA



WSS



OCM



TFF



OP



RFA

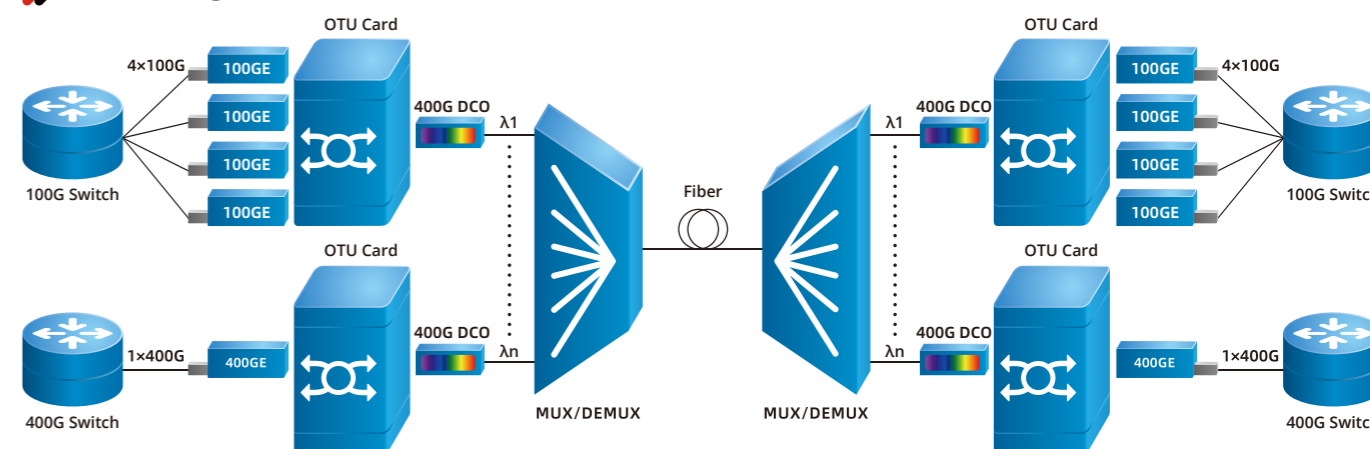


OMU/ODU

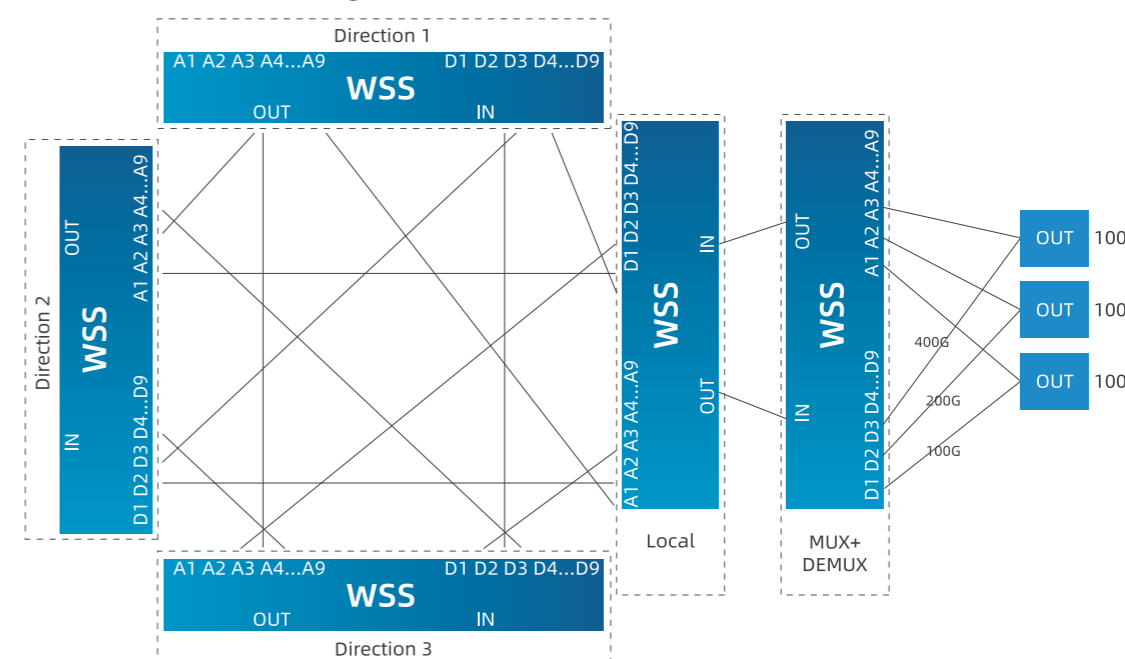


VMUX

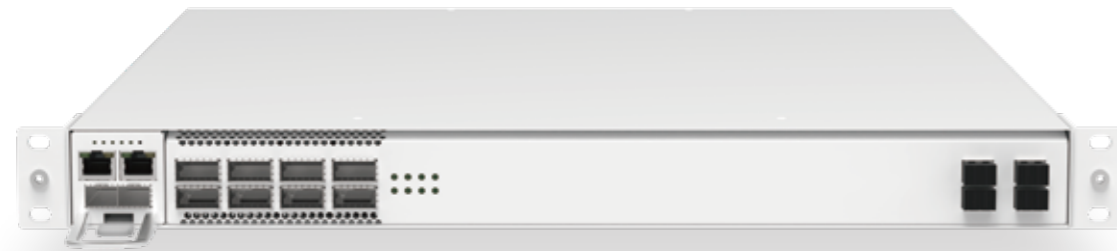
### Wavelength Division Transmission



### Typical ROADM Site Configuration

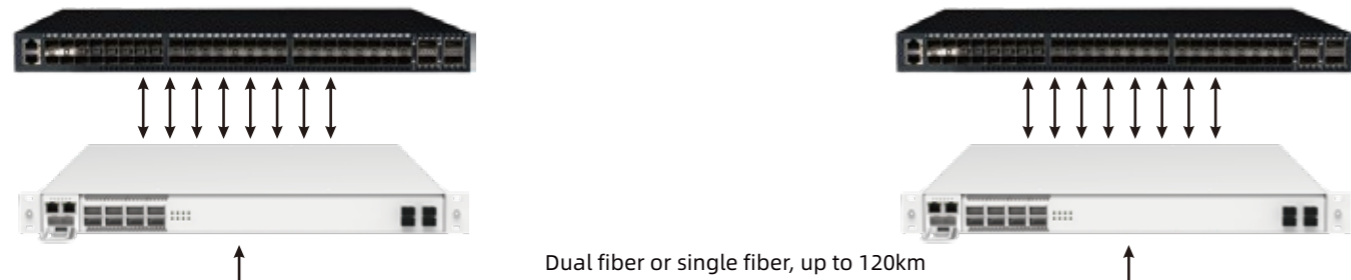


## 1U 800G DCI DWDM Smart BOX



### Features

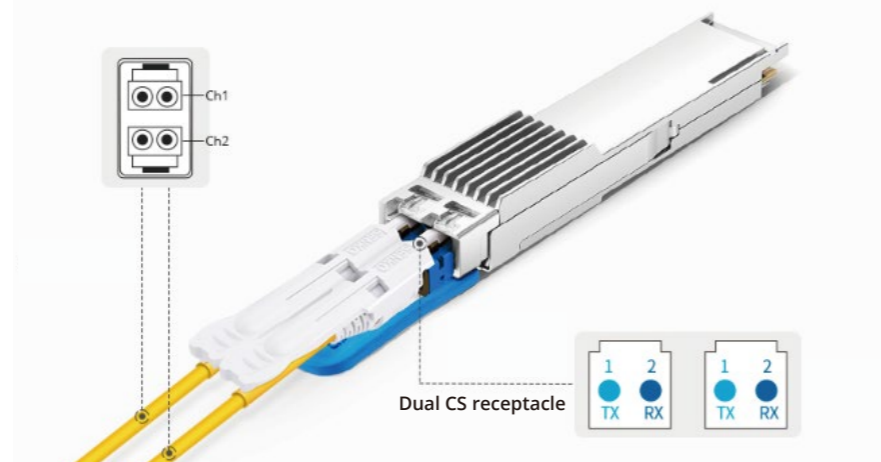
- 1U Chassis, Support 0~120km point-to-point transmission without middle repeater stations
- 50G/λDWDM technology, Improve the utilization of wavelength resources and system capacity
- Convenient deployment and rapid opening of services, Support automatic adjustment of dispersion and power
- Good Universality, One set of system can cover various of scenarios application. Avoid buying multiple sets of spare parts
- Support dual / single fiber core transmission, Save fiber resources and CAPEX
- Support Web/SNMP/CLI management



## 100G QSFP28 2×50G PAM4 DWDM CS Transceiver

### Features

- Hot pluggable QSFP28 MSA form factor
- Up to 80km with EDFA and DCM
- Transmitter: 2×50G PAM4 DWDM cooled EML TOSA
- Receiver: 2×50G PAM4 PIN ROSA
- 4×25G CAUI4 electrical interface
- Integrated SFEC with high coding gain and BERT monitor
- Full C-band 100GHZ ITU DWDM wavelength grid compatible
- Dual CS receptacle



## 1U 800G DCI BOX 1.0



The GIGALIGHT 1U 800G DCI BOX supports ultra-large capacity service access, ultra-long-distance service transmission, and features simple and convenient operation and maintenance management. It can operate reliably and save energy and reduce emissions, which can effectively meet the data center interconnection (DCI) needs of Internet companies, operators, and cloud service providers etc.

### Features

- Fully visible equipment status and board status
- Board parameters can be set through the panel
- Supports in-band or out-of-band network management
- Supports SNMP client

### Specifications

Product Features		Description
Environmental requirements	Operating temperature	-10°C~60°C
	Storage temperature	-20°C~75°C
	Relative humidity	5%~95% No condensation
Size(W×H×D)	1U	482.6×44.5×300mm
Power supply	AC	85~264V, 50~60Hz
	DC	36~72V
Power Consumption	1U	< 150W

## 100G/200G CFP2 OTU Card

The GIGALIGHT 100G/200G CFP2 OTU Card supports the transparent transmission of two 100G signals, can convert one 100G signal with one 100G DWDM signal or convert the two 100G signals into one 200G DWDM signal.



### Features

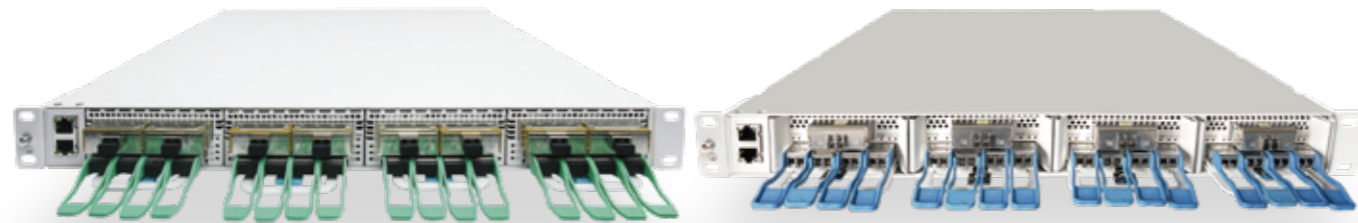
- Hardware standardization, capable of supporting CFP2 DCO series modules from various mainstream manufacturers
- Single board card can access 1 CFP2 module and 2 100G LR4/SR4 modules etc.
- Supports 100GE to 100G DWDM signals (100G CFP2 DCO)
- Conversion and 2×100GE to 200G DWDM signal (200G CFP2 DCO) conversion
- Supports DWDM: C-band (50GHz&100GHz)
- Supports 3R functionality (Re simplifying, Retiming, Reshaping)
- Supports for WEB/SNMP network management

### Specifications

Product Features		Description
Data rate		103~112 Gbps
Port type	Link side	100G CFP2 DCO/200G CFP2 DCO
	Client side	100G LR4/SR4 QSFP28
Modulation		100G DP-QPSK @ 50GHz 200G DP-16QAM @ 50GHz
RX OSNR Tolerance		< 12dB @ 100G DP-QPSK < 20.5dB @ 200G DP-16QAM
Power Consumption		< 35W

## 1U 1.6T DCI BOX

The 1U 1.6T DCI BOX is an industry-leading innovative data center interconnection product. It provides ultra large capacity business access, ultra long distance business transmission, simple and convenient operation and maintenance management (Web/SNMP), and can also operate reliably, save energy, and reduce emissions. It can effectively meet the needs of data center interconnection for users such as internet companies, operators, and cloud service providers. This product supports 4 slots and transparent transmission of 400G OTU. It can convert two 100GE service signals into one 200G DWDM signal.



1U 1.6T DCI 8×200G

1U 1.6T DCI 4×400G

### Features

- Modular design, on-demand configuration, smooth upgrade
- Ultra large capacity, ultra high density, up to 1.6Tbps processing capacity per 1U rack
- Ultra low energy consumption based on state-of-the-art single carrier 200G or 400G coherent DSP
- Provincial modular optical layer function. Realize modularization and miniaturization of various optical layer devices, and flexibly implement optical layer services
- Forward and rear air outlet design, AC/DC power supply, reasonable height, width, and depth design, suitable for server rack requirements in data center equipment rooms, and can be deployed together with servers
- Simple operation and maintenance: Based on the SDN design concept, providing open APIs that can be quickly automated and integrated in any IT operating environment, achieving rapid service deployment
- Support for a unified network management platform, network management methods such as SNMP, Web, NMS (graphical interface), and Netconf/YANG model interface

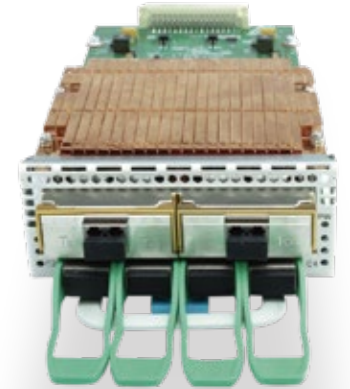
### Specifications

Product Features		Description
Maximum capacity of a single system		8×200G or 4×400G
Wavelength (frequency) range		DWDM: 1529.16nm~1567.14nm(191.3THz-196.05THz)
Single wavelength capacity		100G/200G/400G and three speed smooth upgrade/downgrade; Coherent detection and reception, QPSK/16QAM/16QAMPs modulation technology;
Physical network topology		Chain, star, ring
Environmental requirements	Operating temperature	-10°C~70°C
	Storage temperature	-40°C~80°C
	Relative humidity	5%~95% No condensation
Size(W×H×D)		440mm×44mm×535mm
Heat dissipation ventilation design		Forward wind, rear air, FRU fan
Structure		Integrated chassis, 19 inch rack
Power Supply Requirements (Standard value)		AC voltage range: 90V~264V 50/60Hz DC power supply voltage range: -36V~60V
Safety and EMC		Comply with FCC、UL、CE、TUV、CSA standards
Power consumption		<350W

## 2×200G CFP2 OTU Card for 1U 1.6T DCI BOX (8×200G)

### Features

- Supports DWDM transmission and wavelength conversion
- Single board card supports four 100G bidirectional or four 100G unidirectional service access
- The line side supports two 200G CFP2 coherent optical module
- Customer side supports multiple business interfaces: 100G Base-SR4/CWDM4/LR4/PSM4
- Support SNMP based unified network management platform, network management methods Web, NetRiver (graphical interface)
- Support CDR function, optimize output, DDM signal monitoring, ALS
- Support software to close ports



## 400G CFP2 OTU Card for 1U 1.6T DCI BOX (4×400G)

### Features

- Supports DWDM transmission and wavelength conversion
- Single board card supports four 100G bidirectional or unidirectional service access
- The line side supports one 400G CFP2 coherent optical module
- Customer side support for multiple business interfaces (such as 100GBASE-SR4/CWDM4/LR4/PSM4, etc.)
- Support SNMP based unified network management platform, network management methods Web, NetRiver (graphical interface)
- Support CDR function, optimize output, DDM signal monitoring, ALS
- Support software to close ports



### Specifications

Product Features		Unit	Description	
Service card type		-	2×200G service card	400G service card
Basic parameters				
Channel Spacing		Ghz	50/100	75
Modulation format		-	PM-16QAM	PM-16QAM
OUT Transmitter				
Spectral width	Max. -3dB	nm	0.4	0.4
Min. SMSR		dB	35	35
Average optical power	Max.	dBm	+5	+5
	Min.	dBm	-10	-10
Center frequency	Center frequency	Thz	ITU Grid	ITU Grid
	Max. center frequency offset	Ghz	±2.5	±2.5
OUT Receiver Characteristics				
Receiver sensitivity		dBm	-14	-14
Receiver Min. overload		dBm	0	0
Receiver Max. reflection coefficient		dB	-27	-27
Wavelength range		nm	ITU Grid	ITU Grid
Min. Sandaly capacity(1dB OSNR)		Ps/nm	8000	8000
Min. differential group delay tolerance(1dB OSNR)		Ps	≥30	≥30
RX OSNR tolerance		dB/0.1nm	18.5db/200G PM-8QAM 21 dB/200G PM-16QAM 11.5db/100G PM-QPSK	23 dB /400G PM-16QAM
RX CD tolerance		ps/nm	40000	40000

# Optical Layer Systems

## Optical Transport Platform

GIGALIGHT's optical transport platform can provide ultra-large capacity transmission of multiple access services. It features high service integration, high port density, rich service types, flexible configuration, etc., and supports the graphical management interface of C/S or B/S architecture based on SNMP protocol, providing very clear faults locating for management and maintenance to save costs.

The platform is widely used in telecom operators, radio and television, electric power, education, cloud computing and information security and other fields. For all-optical networks, the platform can be applied to the construction of national, inter-provincial, intra-provincial trunk lines, local metropolitan area networks and various specialized networks.

The platform supports safe, reliable, independent and transparent signal transmission, and can greatly save optical fiber resources through WDM technology, making it the best solution to deal with the shortage of optical cable resources. It can help customers build an optical transmission network that features long transmission distance, high reliability, safe and flexible transmission, and strong disaster-resistant capability.



## Features

- Flexible networking, small footprint, and strong scalability
- Supports hot swap of various service boards
- Supports multiple access services such as SDH, SONET, Ethernet, SAN, OTN and Video
- Line side supports 100G, 200G and 400G single-wave rate
- Support single-fiber unidirectional, single-fiber bidirectional and dual-fiber bidirectional transmission modes
- Supports various networking methods such as chain, star and ring
- Supports client access and interoperability from different vendors
- Supports multiple transmission wavelengths and can add and drop wavelengths at intermediate nodes through OADM
- Supports Web and NetRiver managements based on SNMP
- Support 1+1 power hot-swappable redundant backup with optional AC and DC power supplies

## Specifications

Product Features	Description			
	1U	2U	4U	5U
Platform	1U	2U	4U	5U
Size(W×H×D)	440mm×44mm×285mm	440mm×88mm×285mm	440mm×176mm×285mm	440mm×220mm×285mm
Slots	4	8	16	20
Power Consumption	≤120W	≤200W	≤300W	≤400W
Client-side Rate	100GE/OTU4 or 10GE/OC-192/STM-64/8GFEC/10GFEC/16GFEC			
Line-side Rate	100G/200G/400G			
Modulation	QPSK/16QAM/64QAM			
Operating Temperature	-10°C to +70°C			
Storage Temperature	-40°C to +80°C			
Relative Humidity	5% to 95% (non-condensing)			
Power Supply	AC (90V to 264V, 50/60Hz), DC (-36V to +60V)			

## Service Cards



EDFA Card



OCM Card



OTDR Card



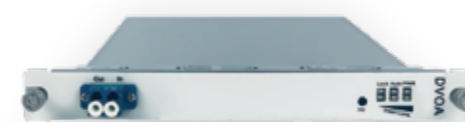
TDCM Card



RFA Card



OBP Card



DVOA Card



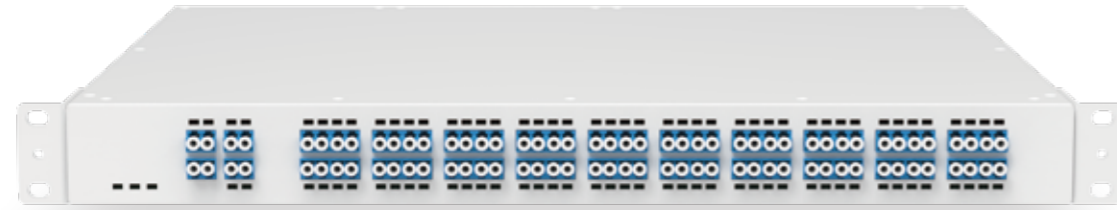
OLP Card



OSS Card

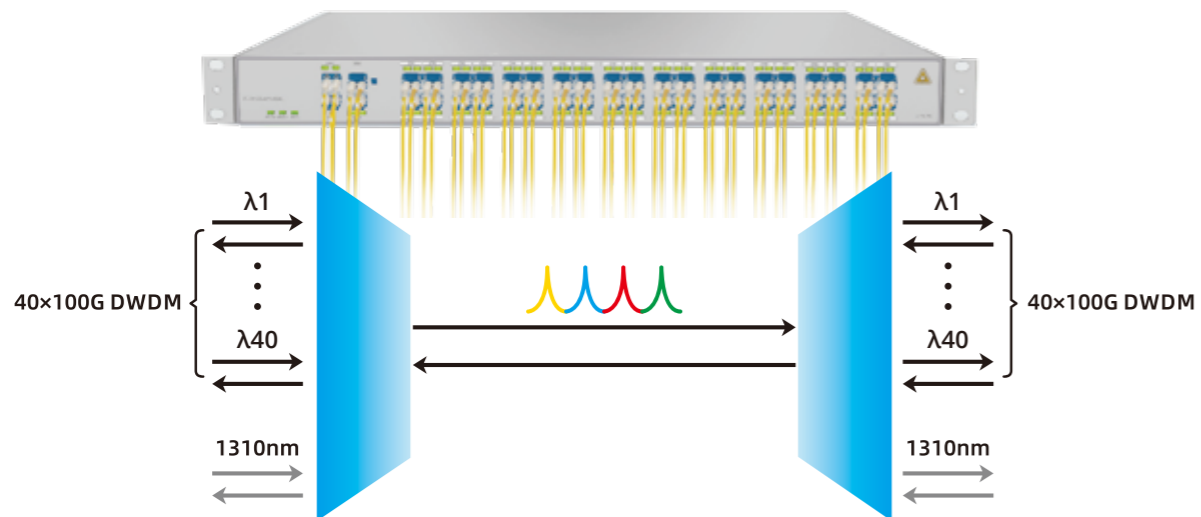
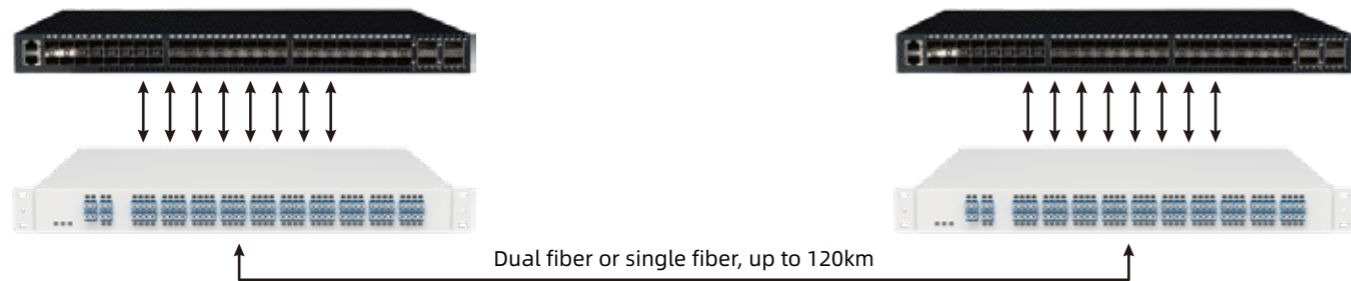


## Smart Optical Line System



### Features

- Support DWDM signal access of various coding technology types: PAM4 (40G/100G), NRZ(1-32G), Coherent (OPSK/80AM/16QAM)
- Supports dispersion/power dynamic adaptive compensation
- Support optical fiber cable link length, fault monitoring and location
- Support 1+1 optical line protection
- Support 40CH TX/RX, 1310 TX/RX, COM port power real-time high-precision monitoring
- Support 1310nm 40/100G expansion channel, OSC channel
- The device panel supports visual port service power status and yellow-green dual-color LED alarm
- Realize the centralized visualization and unified management of 40 service ports' optical power
- Support Web/SNMP management



## Rack Mount Passive DWDM MUX DEMUX

### 48CH 100GHz DWDM MUX DEMUX

#### Features

- 1U 19" rack mount package based on AAWG
- 100GHz (0.8nm) channel spacing
- Compliant with ITU G.694.1
- Typical insertion loss < 4.0 dB (Gaussian) or < 6.0 dB (Flat-top)
- 1% monitor port for easy troubleshooting without downtime
- LC/UPC duplex connector
- Telcordia GR-1209-CORE and CR-1221-CORE compliant
- RoHS compliant



### 64CH 75GHz DWDM MUX DEMUX

#### Features

- 2U 19" rack mount package based on AAWG
- 75GHz (0.6nm) channel spacing
- Compliant with ITU G.694.1
- Typical insertion loss < 6.0 dB (Flat-top)
- 1% monitor port for easy troubleshooting without downtime
- LC/UPC duplex connector
- Telcordia GR-1209-CORE and CR-1221-CORE compliant
- RoHS compliant



### 96CH 50GHz DWDM MUX DEMUX

#### Features

- 2U 19" rack mount package based on AAWG
- 50GHz (0.4nm) channel spacing
- Compliant with ITU G.694.1
- Typical insertion loss < 7.3 dB (Flat-top)
- 1% monitor port for easy troubleshooting without downtime
- LC/UPC duplex connector
- Telcordia GR-1209-CORE and CR-1221-CORE compliant
- RoHS compliant

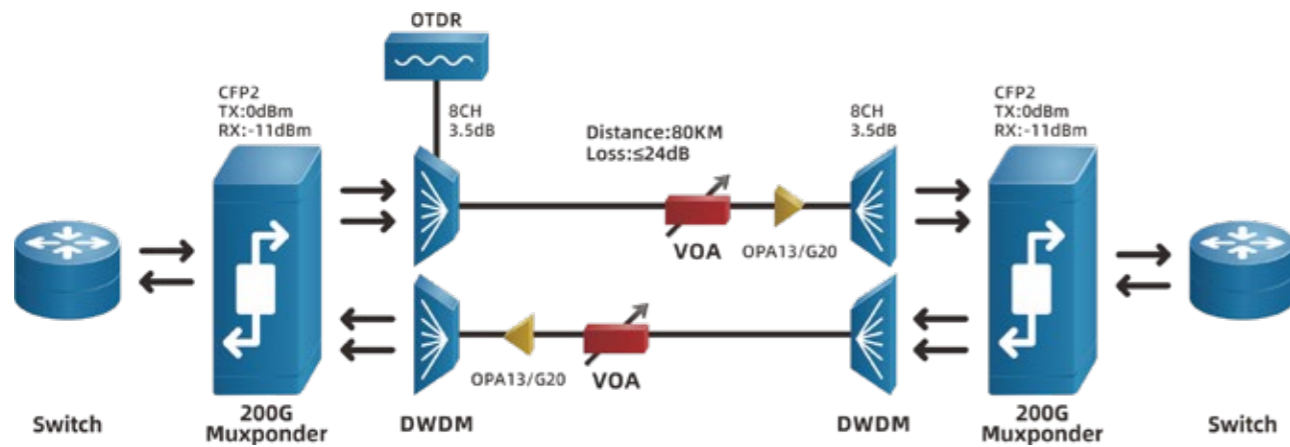


# User Cases

## User Instances

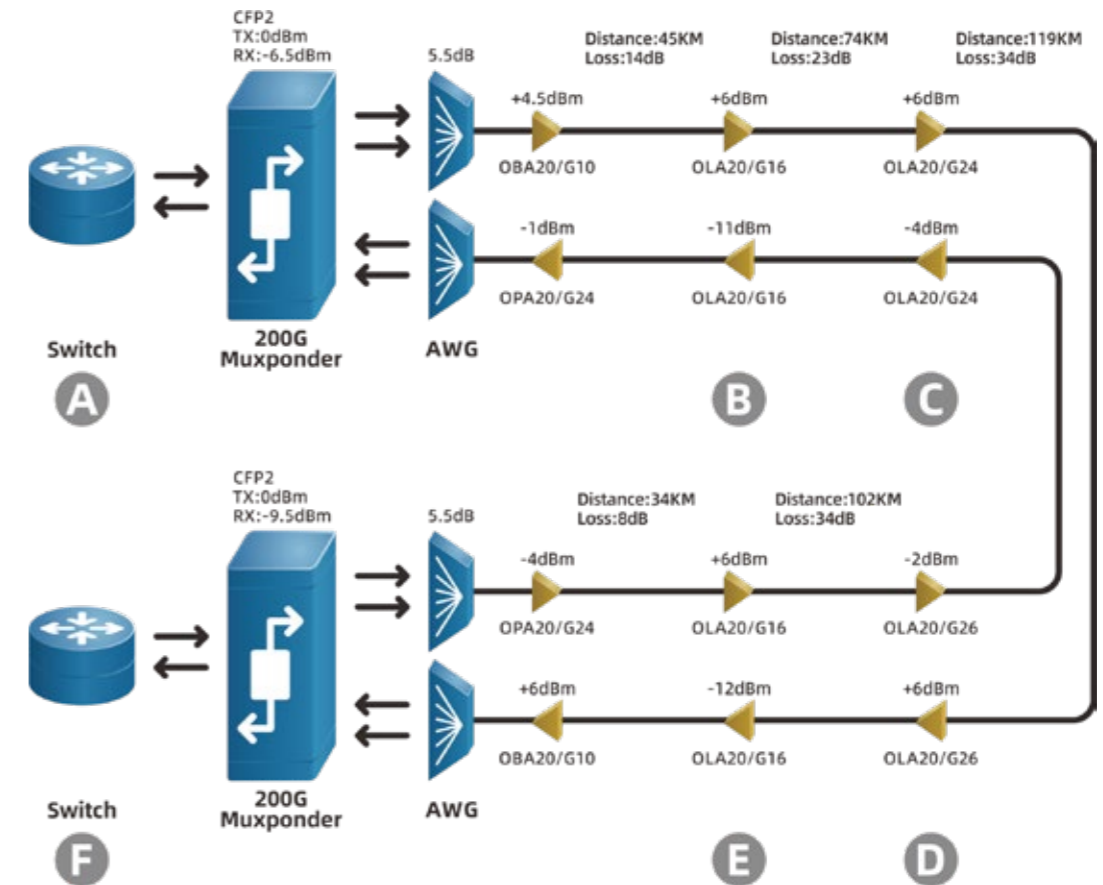


## Single Lambda 200G DWDM Coherent 80km



Main description: 1CH×200GE, Optical power margin > 3dB; System configuration VOA can adjust optical insertion loss, EDFA input optical power can be controlled; OTDR system configuration, optical cable performance monitoring.

## Single Lambda 200G DWDM Coherent 600km (Standard Multi-span)



Main description: 16CH×100GE, RX OSNR margin > 3dB; System configuration VOA can adjust optical insertion loss, EDFA input optical power can be controlled; OTDR system configuration, optical cable performance monitoring.

## Single Lambda 200G DWDM Coherent 200km (Ultra-long Single-span)

