



DCU series
DWDM Transmission Platform

High-capacity
optical transport platform
for enterprise networks



Product Overview

DCU series DWDM platform represents a modern solution for data center interconnection, combining compact design with high-capacity service delivery. It supports ultra-long-distance transmission while offering straightforward operation and maintenance. The system ensures stable performance and improved energy efficiency, making it suitable for long-haul, high-bandwidth connectivity requirements.

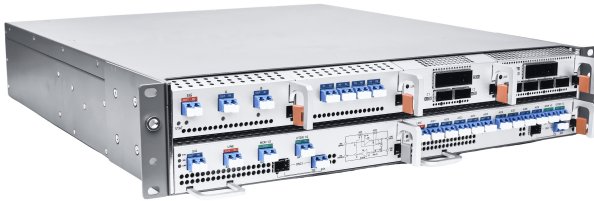
The DCU series DWDM platform features a modular architecture that enables cost optimization through optical-electrical separation. It also supports unified management of integrated photonic and electrical components. With built-in SDN capabilities, the system provides a flexible and intelligent network framework. It offers a YANG-based interface via the NetConf protocol and supports multiple management options, including Web, CLI, and SNMP, ensuring efficient and convenient operation.

The platform is well suited for deployment in national and regional backbone infrastructures, as well as metropolitan core networks and data center interconnect environments. It supports high-capacity nodes exceeding 16T, addressing the demands of large-scale traffic transmission. The solution is designed to deliver strong cost efficiency while enabling robust, high-capacity connectivity for IDC providers and Internet service operators.

Product illustration



DCU-400-1U



DCU-800-2U

Recommended cases

- Small and medium-sized DCI in metropolitan areas
- OTT Metropolitan DCI
- Large/Extra-large DCI

Disaggregation system:

Supports Netconf protocol based on the Yang model, Web/CLI/SNMP

Supports open management interfaces and Open API to achieve management decoupling

Adapt to the data center environment:

Support hot-swapp for business cards, fans, main controllers, and power boards. The machine features a front-in/out design with robust heat dissipation capability.

Device features:

Master controller with 1:1 backup, supporting dual-gigabit Ethernet and OSC management, featuring Layer 2 RSTP ring topology and Layer 3 networking protocols including OSPF and BGP.

Compatible with AC, high-voltage DC, and -48V power supplies, designed for data center applications.

Ultra-high integration: 1U and 2U configurations, with 2U supporting 8×800G service slots and 1U supporting 4×800G slots. All service boards are fully compatible.

Flex Rate/Flex Services:

client side: Supports 10GE/100GE/100G FlexE/100G

OTU4/200GE/400GE

line side: Supports single-wavelength

100G/200G/300G/400G/800G

Ultra-large capacity:

A 2U chassis can handle up to 6.4T of service capacity, while a 1U chassis supports 3.2T, setting an industry-leading benchmark.

Minimal maintenance

Flexible definitions and intelligent maintenance enhance the operability of remote operations.

Supports remote network and serial port access, and remote hot and cold restart.

Supports remote upgrades for chassis and boards, remote configuration imports, and remote log downloads.

Performance

Item		Description
Transmission capacity		120x200Gbps /80x400Gbps
Network management unit		<ul style="list-style-type: none"> ● 2U: Dual controller with 1+1 redundancy; 1U: Single controller ● Administration port: 2U:2×RJ45 Gigabit Ethernet ports, 1×RJ45 Console 1U:2×RJ45 Gigabit Ethernet ports, 1×Micro Console 2U:2xOSC Gigabit/100Mbps ports 1U:2xOSC Gigabit/100Mbps ports 2U:2xUSB ports (Type A) 1U:1xUSB port (Type A) 2U:2xMUX ports ● Supports NETCONF/SNMP/standalone web-based network management ● Supports CLI, SSH, Telnet, and other management methods
Electrical layer card		<p>LCD-800Q4 supports the following service configurations: 1x400G to 4x100G (1+1 protection), 1x800G to 4x200G (1+1 protection), 2x400G to 8x100G, and 2x800G to 8x200G.</p> <p>LCD-400Q4 supports 1x400G to 4x100G and 1x200G to 2x100G. LCD-400QD4 supports 1x400G to 4x100G,1x300G to 3x100G,1x200G to 2x100G, and 1x100G to 1x100G. LCD-400QD supports 1x400G to 4x100G and 1x100G to 1x100G.</p> <p>The LCD-200QS supports 1x200G to 20x10G and 1x100G to 10x10G. The LCD-200S supports 1x200G to 20x10G. The LCD-200Q2 supports 1x200G to 2x100G and 1x100G to 1x100G.</p> <p>LCD-100QD2 supports 1x100G to 2x50G.</p>
Optical card		LCD-9WS25, LCD-FWD, LCD-OLP, LCD-8DR, LCD-BOPCM, LCD-OA, LCD-OLA
Size	1/2 service card	216 mm (W) X 254 mm (D) X 42 mm (H)
	1/4 service card	107 mm (W) X 254 mm (D) X 42 mm (H)
	2U chassis	Supports 8×1/4 slots or 4×1/2 slots 442mm (W) X 484mm (D) X 88mm (H)
	1U chassis	Supports 4×1/4-inch slots and 2×1/2-inch slots 442mm (W) X 510mm (D) X 44mm (H)
Environment	Working temperature	-5°C ~ 45°C
	Storage temperature	-40°C ~ 80°C
	Humidity	5% ~ 95% no condensation
Power		Dual power supply with 1+1 redundancy: AC220V/High-voltage DC/-48V optional
Power dissipation		2U <800W; 1U <600W (based on full electrical layer configuration/maximum fan speed)

Network management unit: MS main control card

The Management System (MS) acts as the primary control module within an optical communication chassis, serving as the central control element frame-type optical communication equipment. It oversees both the control and management planes of the system. Equipped with a high-performance processor, hot-swappable capability, and a dedicated cooling mechanism, the MS card interacts with service boards through the backplane bus. Its functions include configuration management, cross-connection control, real-time status monitoring, policy handling, logging, alarm management, software upgrades and resets, environmental supervision, SNMP setup, and system bus coordination. The module is installed in a designated main control slot on the backplane.

Product illustration



MS-400 card



MS-800 card

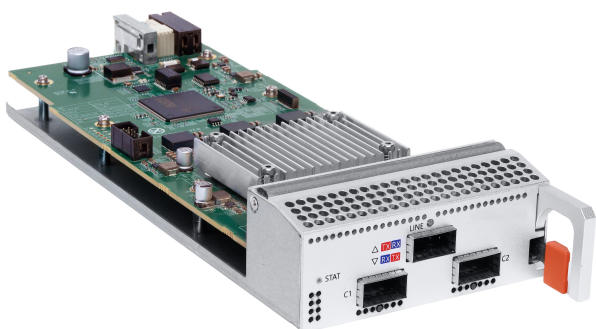
- Supports service configuration management, cross-connection control, and control policy formulation
- Supports device status monitoring, log recording, alarm reporting, software upgrades, reset control, and environment monitoring
- Supports network configuration, SNMP settings, and management interface system bus
- Supports primary-standby switching and data backup recovery
- Supports multiple management methods including CLI, Telnet, SNMP, Web, SSH, and Netconf

Performance		Qualification
Service Configuration Management		Supports multiple management methods including CLI, Telnet, SNMP, Web, SSH, and Netconf
CPU		Clock speed: 1500MHz, Memory: 2G
Control strategy		Supports synchronization, version synchronization, switching policy types, and network configuration
Condition monitoring	Collection status	Real-time monitoring of board, port, and service status
	Generate alarm	Generate and report abnormal alarms for business status and board status to the network management system, with alarm classification and filtering support
	Daily record	Record device operation logs and fault logs, with support for log storage, querying, and exporting.
	Version management	Responsible for upgrading device system software and firmware, and managing configuration versions. Supports user management.
Reliability assurance		Primary-standby failover, clock synchronization, data backup and recovery, 2U with 1+1 redundant backup
Hardware management		Check if the board is in place or offline, automatically identify the board type, and control power-on/off and reset of the board
Size		2U: 188.9mm(W)*56.7mm(D)*41.4mm(H) 1U: 171.27mm(W)*46.5mm(D)*40.9mm(H)
Environment	Working temperature	-5°C ~ 45°C
	Storage temperature	-40°C ~ 80°C
	Relative humidity	5% ~ 95% no condensation
Power dissipation		≤10W

LCD-100QD2: 100G Muxponder

The card is designed for aggregation of 2x50GE client traffic with subsequent output to the line interface via a QSFP28 slot (1x100GE). The compact design allows it to occupy 1/4 of the slots. The device's functionality includes advanced monitoring according to the Ethernet RMON standard, which allows you to track port utilization, the amount of transmitted data (bytes/packets), as well as monitor errors (CRC and damaged packets). For correct operation in complex topologies, LLDP protocol support and the ability to precisely measure signal delays are provided..

Product illustration



LCD-100QD2 card

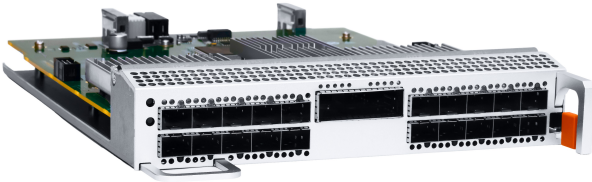
- Supports single-channel 100G high-speed data transfer
- Supports DDM digital diagnosis, OSNR monitoring, and real-time bit error rate monitoring
- Supports ALS function and LFP function
- Supports LLDP and RMON statistics
- Activation FEC
- Support port hardware and software loop test

Performance		Qualification
Speed (Gbps)		Client side bandwidth: 2x50Gbps, line side bandwidth: 1x100Gbps
Type of service		Supports 100GE and other service access; activates FEC
Joggle	Client side	2x50Gbps QSFP28
	Line side	1xQSFP28 100Gbps module
Size		107 mm (W) X 254 mm (D) X 42 mm (H)
Environment	Working temperature	-5°C ~ 45°C
	Storage temperature	-40°C ~ 80°C
	Relative humidity	5% ~ 95% no condensation
Power dissipation		≤45W

LCD-200S: 200G Muxponder

The branch side features 20 SFP+ ports supporting 20x10GE service access, while the line side accommodates one CFP2 coherent DCO for 1x200GE line side services. The card occupies 1/2 of the slots.

Product illustration



LCD-200S Card

- Supports 20x10GE port configuration on the branch side
- line side interface CFP2: Supports 1x200GE/1x100GE
- Supports 190.7~196.65THz, with adjustable wavelengths at 50/75/100/150GHz intervals
- Supports adjustable DCO output power
- Support port hardware and software loop test
- Supports DDM digital diagnosis, OSNR monitoring, and real-time bit error rate monitoring
- Supports ALS function and LFP function
- Supports local fault insertion
- Supports transparent transmission of Local Fault and Remote Fault
- Supports LLDP and RMON statistics
- supporting delay measurement

Performance		Qualification
Line side center wavelength		Supports 190.7~196.65THz, with adjustable wavelengths at 50GHZ/75GHZ/100/150GHZ intervals
Power (dBm)		The emission power can be adjusted within a specific range depending on the type of DCO module.
Speed (Gbps)		20x10Gbps on the branch side, 200Gbps per wavelength on the line side
Type of service		Supports 10G and other service access.
Joggle	Branch test	20xSFP+ module
	Line side	1×CFP2 DCO 200Gbps DWDM module
OSNR function	DP-QPSK-OFEC-100G	OSNR tolerance 12.5dB
	8QAM-OFEC-200G	OSNR tolerance 20dB
	DP-QPSK-OFEC-200G	OSNR tolerance 14dB
Size		216 mm (W) X 254 mm (D) X 42 mm (H)
Environment	Working temperature	-5°C ~ 45°C
	Storage temperature	-40°C ~ 80°C
	Relative humidity	5% ~ 95% no condensation
Power dissipation		≤80W

LCD-200Q2: 200G Muxponder

This functional unit is designed to handle client traffic via two QSFP28 ports (2x100GE). On the line side, the device is equipped with a CFP2 Coherent DCO interface, which provides flexibility in data transmission in 1x100GE or 1x200GE modes. The compact design of the module allows for rational use of chassis space, occupying only a quarter (1/4) of the available slots.

The system supports precise monitoring of the network status using the Ethernet RMON protocol, including detailed analysis of packet activity, byte accounting, port congestion and error control (CRC/error packets). In addition, support for the LLDP device discovery protocol and the function of precise measurement of signal delays in the channel are implemented.

Product illustration



LCD-200Q2 Card

- Supports single-channel 100G/200G high-speed transmission
- Supports 190.7~196.65THz with adjustable 50/75/100/150GHz wavelength intervals
- Supports adjustable DCO output power
- Support port hardware and software loop test
- Supports DDM digital diagnosis, OSNR monitoring, and real-time bit error rate monitoring
- Supports ALS function and LFP function
- Supports local fault insertion
- Supports transparent transmission of Local Fault and Remote Fault
- Supports LLDP and RMON statistics
- Supporting delay measurement
- Supports FEC enablement, loopback function, and IDLE code stream insertion

Performance		Qualification
Line side center wavelength		Supports 190.7~196.65THz, with adjustable wavelengths at 50GHZ/75GHZ/100/150GHZ intervals
Speed (Gbps)		Client side service at 2x100Gbps, line side service at 1x200Gbps per wavelength
Power (dBm)		The emission power can be adjusted within a specific range depending on the type of DCO module.
Type of service		Supports 100GE and other service access; FEC enabled
Joggle	Client side	2x100Gbps QSFP28
	Line side	1x CFP2 DCO 200Gbps DWDM module
OSNR function	DP-QPSK-OFEC-100G	OSNR tolerance 12.5dB
	DP-QPSK-OFEC-200G	OSNR tolerance 14dB
	16QAM-OFEC-200G	OSNR tolerance 20dB
Size		107 mm (W) X 254 mm (D) X 42 mm (H)
Environment	working temperature	-5°C ~ 45°C
	storage temperature	-40°C ~ 80°C
	relative humidity	5% ~ 95% no condensation
Power dissipation		≤30W

LCD-400Q4: 400G Muxponder

This card is designed for high-speed traffic aggregation via four 100GE client ports. On the line side, support for the CFP2 DCO interface is implemented, which allows data to be transmitted in a single coherent 1x400GE channel. The device is versatile and supports various types of 100GE-based services, while occupying only 25% (1/4) of the chassis slots. To ensure stable network operation, the Ethernet RMON toolkit has been implemented, which provides complete data on the traffic status: statistics of transmitted packets and bytes, port utilization level and the presence of errors (CRC/error packets). In addition to diagnostic functions, the module supports the LLDP protocol and accurate real-time delay monitoring.

Product illustration



LCD-400Q4 card

- Supports single-channel 200G/400G high-speed transmission
- Supports 190.7~196.65THz with adjustable wavelengths at 50/75/100/150GHz intervals
- Supports adjustable DCO output power
- Support port hardware and software loop test
- Supports DDM digital diagnosis, OSNR monitoring, and real-time bit error rate monitoring
- Supports ALS function and LFP function
- Supports local fault insertion
- Supports transparent transmission of Local Fault and Remote Fault
- Supports LLDP and RMON statistics
- supporting delay measurement
- Supports FEC enablement, loopback function, and IDLE code stream insertion

Performance parameter		Qualification
Line side center wavelength		Supports 190.7~196.65THz, with adjustable wavelengths at 50GHZ/75GHZ/100/150GHZ intervals
Speed (Gbps)		Client side bandwidth: 4x100Gbps, line side bandwidth: 1x200Gbps and 1x400Gbps
Power (dBm)		The emission power can be adjusted within a specific range depending on the type of DCO module.
Type of service		Supports 100GE and other service access; FEC enabled
Joggle	Client side	4x100G QSFP28
	Line side	1xCFP2 400Gbps DWDM module
OSNR function	DP-QPSK-OFEC-100G	OSNR tolerance 12.5dB
	DP-QPSK-OFEC-200G	OSNR tolerance 14dB
	16QAM-OFEC-400G	OSNR tolerance 20dB
Size		107 mm (W) X 254 mm (D) X 42 mm (H)
Environment	Working temperature	-5°C ~ 45°C
	Storage temperature	-40°C ~ 80°C
	Relative humidity	5% ~ 95% no condensation
Power dissipation		≤75W

LCD-800Q4: 800G Muxponder

High-performance aggregation unit for 8x100GE (QSFP28) or 8x200GE (QSFP56). The line part is based on dual CFP2 slots, which allows implementing 1x800GE with protection (1+1) or 2x800GE. Supports flexible 100GE FlexE services and standard 100/200GE. The card occupies 1/2 slot. The toolkit includes RMON analysis (packets, bytes, CRC, recycling), LLDP support and delay control.

Product illustration



LCD-800Q4 card

- Supports single-channel 400G/800G high-speed transmission
- Supports 1+1 protection on the line side
- Supports 190.7~196.65THz with adjustable wavelengths at 50/75/100/150GHz intervals
- Supports adjustable DCO output power
- Support port hardware and software loop test
- Supports DDM digital diagnosis, OSNR monitoring, and real-time bit error rate monitoring
- Supports ALS function and LFP function
- Supports local fault insertion
- Supports transparent transmission of Local Fault and Remote Fault
- Supports LLDP and RMON statistics
- Supports FEC enablement, loopback function, and IDLE code stream insertion
- Supports FEC enable and IDLE stream insertion

Performance		Qualification
Line side center wavelength		Supports 190.7~196.65THz, with adjustable wavelengths at 75GHZ/100/150GHZ intervals
Speed (Gbps)		Client side services: 8x200Gbps and 8x100Gbps; line side services: 1x400Gbps (1+1 redundancy) and 2x800Gbps
Power (dBm)		The emission power can be adjusted within a specific range depending on the type of DCO module.
Type of service		Supports 100GE, 100GE FlexE, 200GE, and other service access; FEC enabled
Joggle	Client side	8x100Gbps QSFP28 or 8x200Gbps QSFP56
	Line side	2xCFP2 800Gbps DWDM module (supporting 800GE and 400GE)
OSNR function	400G PM-QPSK	OSNR tolerance 17dB
	400G 16QAM-PS	OSNR tolerance 18.5dB
	800G PM-16QAM-PS	OSNR tolerance 25.5dB
Size		216 mm (W) X 254 mm (D) X 42 mm (H)
Environment	Working temperature	-5°C ~ 45°C
	Storage temperature	-40°C ~ 80°C
	Relative humidity	5% ~ 95% no condensation
Power dissipation		≤150W

LCD-OA/LCD-OLA Amplifier Card

The EDFA optical amplifier card highly integrated solution based on erbium-doped fiber with low noise, capable of operating with constant gain (Automatic Gain Control, AGC) and constant output power (Automatic Power Control, APC). Supporting dual amplifiers with two independent gain units. The card occupies 1/4 of the slots.

Product illustration



LCD-OA Card



LCD-OLA Card

- Operating wavelength range: 1528nm~1565nm
- Supports 2-channel amplification: BA/PA or 2*LA
- Low noise figure: typical value 5dB
- Excellent gain flatness
- The gain support for VOA is adjustable within ± 5 dB.
- Three working modes are available:
 - Adjustable AGC gain
 - APC output adjustable
 - ACC voltage adjustable
- Supports OSC port for remote network management monitoring
- Supports both OTDR 1625 and OSC 1510 interfaces
- Supports optical power monitoring at the MON port

Performance		Min. value	Typical value	Max. value	unit
Operating wavelength		1528		1565	nm
Output optical power				20	dBm
Gain		8		33	dB
Interior input power	BA	-10		Maximum Output-Gain	dBm
	PA/LA	(Maximum input-29)		Maximum Output-Gain	
Noise factor			5.0		dB
Gain flatness			1.0		dB
Input threshold		-34		adjustable	dBm
Polarization dependent loss				0.3	dB
Polarization dependent gain				0.4	dB
Polarization mode dispersion				0.5	ps
Leakage current pump				-29	dBm
Return loss		45			dB
Size		216 (width) x 254 (depth) x 42 mm (height)			mm
Environment	Working temperature	-10°C ~ 60°C			°C
	Storage temperature	-40°C ~ 80°C			°C
	Relative humidity	5% ~ 95% no condensation			
Power dissipation		≤30			W

LCD-OLP01/LCD-OLP02 Optical Protection Card

The Optical Line Protection (OLP) system is high-tech subsystem based on dynamic synchronous switching. In the event of a fiber break or critical signal attenuation, the system instantly switches traffic from the main line to the backup line. This reduces the connection restoration time from hours to milliseconds, preventing service interruptions. The card has a compact design and occupies 1/4 of a slot.

Product illustration



LCD-OLP01 card



LCD-OLP02 card

- Supports automatic primary-secondary route switching
- Supports manual and automatic mode switching
- Low switching time $\leq 20\text{ms}$
- Low insertion loss: $\leq 5.5\text{dB}$
- Support automatic return to home
- Support manual and automatic mode settings
- Support manual return to auto mode
- Supports switching threshold settings
- Supports 1-2 OLP1+1 protection channels

The optical circuit protection switch provides both modes - manual and automatic switching.

Manual mode: the system switches the optical path solely based on user commands.

Automatic mode: the system switches between detected power levels and preset thresholds.

The system can be set to either recovery mode or non-recovery mode.

Performance		1+1	unit
Operating wavelength		1310±50nm, 1550±50nm	nm
Optical power range		+23 ~ -50	dBm
Optical power accuracy		±0.25	dB
detection of optical power resolution		±0.01	dB
Return loss		≥55	dB
Polarization dependent loss		≤0.05	dB
Wavelength dependent loss		≤0.1	dB
Insertion loss		Tx≤4dB, RX≤1.2dB	dB
Switching speed		<15	ms
Size		107 (width) x 254 (depth) x 42 (height)	mm
Environment	Working temperature	-10°C ~ +60°C	°C
	Storage temperature	-40°C ~ +85°C	°C
	Relative humidity	5%~95% No condensation	
Power dissipation		≤15	W

LCD-8DR Optical Time Domain Reflectometer Card

A comprehensive 24/7 monitoring solution that integrates fault analysis, fault localization, and network management into a single interface. The system automatically detects fiber defects, provides protective traffic switching, and provides early warnings for preventive maintenance. This minimizes downtime and prevents failures before they occur. The card occupies 1/4 slot..

Product illustration



LCD-8DR Optical Cable Monitoring Card

- Optical Time Domain Reflectometer (OTDR) monitoring card, occupying 1/4 channel
- Supported operating wavelengths: 1501nm/1625nm ±10nm
- Supports dynamic levels above 36dB
- Supports maximum 130KM optical cable monitoring
- Supported pulse width: 0.1ns to 20us
- Supports 8 or 12-direction fiber optic polling monitoring
- Supports online real-time monitoring
- Supports displaying test line results on GIS
- Supports saving test results

Performance	Qualification	Unit
Operating wavelength	15xx or 16xx	nm
OTDR dynamic range	≥36	dB
OTDR pulse width range	0.1~20	us
Maximum detection distance	≥130	km
OTDR loss detection accuracy	±0.5	dB
OTDR distance detection accuracy	< 20	m
Sampling precision pulse width range	0.05~8	m
OTDR event blind spot	< 10	m
OTDR attenuation blind spot	< 20	m
Degree of linearity	±0.05	dB/dB
Maximum output optical power	< 17	nm
Monitoring port	8	
Size	107(W) x 254(D) x 42 (H)	mm
Working temperature	-10°C ~ +60°C	
Storage temperature	-40°C ~ +85°C	
Relative humidity	5%~95% No condensation	
Power dissipation	≤15	w

LCD-9WS25 WSS All-Optical Crossed Wavelength Selectors

LCD-9WS25 is a compact solution for dynamic traffic management and flexible lambda routing in networks of any type. The module serves as a basic element for building ROADMs (up to 9 directions) and has 9 independent branching ports. The switch allows to selectively redirect any of the 96 DWDM channels (ITU-T 50 GHz grid, C-band) to any port. Optical splitters distribute the input signal, with one port optimized for local output of traffic with minimal losses. The system occupies 1/2 of a chassis slot..

Product illustration



LCD-9WS25 card

- Channel spacing options: 50/75/100GHz
- Directionless and colorless
- Users can configure highly flexible controls
- High resolution integrated VOA
- Quick channel switching
- Integrated optical path monitoring
- Hot pluggable
- Supports integrated BA+PA amplifier
- Supports OSC port for remote network management monitoring
- Supports both OTDR 1625 and OSC 1510 interfaces
- Supports optical power monitoring at the MON port

Performance		Qualification			Unit
Channel wavelength		1528.773~1566.73			nm
Channel spacing		50/100			Ghz
Channel spectral width		N*12.5	4≤N≤12		Ghz
Channel passband		> 0.3			nm
Insertion loss flatness		< 0.5			dB
Insertion loss	Add 1~9 to BA input	6.3	7.5	8.1	(dB)
	(PA output to Drop 1~9)	6.3	7.5	8.1	(dB)
Channel separation	Adjacent value	25			dB
	Non-adjacent values	35			dB
Polarization dependent loss		<0.15			dB
VOA dynamic range		0~15dB			dB
Set VOA resolution		0.1			dB
VOA setprecision	@0~10dB damping	±1			dB
	@>10dB damping	±1.5			
Directivity		>50			dB
Return loss		>45			dBm
Response time	< 2dB step	< 1400		ms	
	< 15dB step	< 2000			
	Port switching	< 3000			
Size		216 (W) x 254 (D) x 42 (H)			mm
Working temperature		-10°C ~ +60°C			
Storage temperature		-40°C ~ +85°C			
Relative humidity		5%~95% Non-condensing			
Power dissipation		≤80			w

LCD-BOPCM Multi-channel Power Monitoring Card

The Optical Channel Monitor (OCM) module is a powerful complement to optical transmission systems, serving as a node for optical communication to monitor and measure the DWDM wavelengths at strategic points in the optical network. This module can identify discrete DWDM wavelengths and provide detailed information on their optical power. The OCM module supports power monitoring for 8-core fibers.

The strategic placement of modules at various points in the optical network, combined with the flexibility and quality of information obtained through remote access management, provides powerful tools for troubleshooting and advanced alert purposes. Occupying 1/4 of the slot.

Product illustration



LCD-BOPCM Card

- Hot plugable
- 50/75/100GHz channel spacing monitoring
- The board provides 8 ports.
- Real-time monitoring of channel wavelength occupancy
- Supports selecting any port for optical power measurement
- Supports 8-channel polling detection
- Supports online real-time monitoring

Performance	Qualification	Unit
Operating wavelength range	1528~1567	nm
Channel spacing	50/75/100	GHz
Power measurement accuracy	≤1dB	dB
Relative power accuracy	±0.8	dB
Optical accuracy	0.1	dB
OCM scan time-all channels	≤1	s
Channel power range	-40~-10	dBm
Wavelength accuracy	±0.1	nm
Wavelength accuracy	0.02	nm
Switch time (maximum)	30	ms
Scan frequency	> 1	Billion
Size	107 (width) x 254 (depth) x 42 (height)	mm
Working temperature	-10 ~ +60	°C
Storage temperature	-40 ~ +85	°C
Relative humidity	5%~95% Non-condensing	
Power dissipation	≤15	W

LCD-FWD TFF Fixed Optical Wavelength Division Multiplexer

TFF boards serve as an economical and efficient wavelength filtering solution in optical communication networks, enabling optical signal splitting and uplink operations at fixed wavelengths. As the fixed configuration of Optical Add-Drop Multiplexer (OADM), they achieve wavelength filtering by reflecting other wavelengths while transmitting specific ones, establishing stable, low-latency wavelength connections. Featuring a simple structure, low cost, and excellent stability, these boards are particularly suitable for metropolitan area networks, access networks, and small-to-medium data center interconnections. The card occupies 1/4 of the slots.

Product illustration



LCD-FWD1619 card

- Hot plugable
- 100GHz channel spacing
- Supports 4 fixed wavelengths
- Built-in VOA for EXP
- Supports extended cascading, where EXP ports are used for connection during cascading.

Performance		Qualification	Unit
Operating wavelength range	LCD-FWD1619	Center frequencies: 191.90,191.80,191.70,191.60 Central wavelengths: 1562.23,1563.05,1564.86,1565.68	THz nm
	LCD-FWD2023	Center frequencies: 192.30,192.20,192.10,192.00 Central wavelengths: 1558.98,1559.79,1560.61,1561.42	THz nm
	LCD-FWD2528	Center frequencies: 192.80,192.70,192.60,192.50 Central wavelengths: 1554.94,1555.75,1556.55,1557.36	THz nm
	LCD-FWD2932	Center frequencies: 193.20,193.10,193.00,192.90 Central wavelengths: 1551.72,1552.52,1553.33,1554.13	THz nm
	LCD-FWD3437	Center frequencies: 193.70,193.60,193.50,193.40 Central wavelengths: 1547.72,1548.51,1549.32,1550.12	THz nm
	LCD-FWD3841	Center frequencies: 194.10,194.00,193.90,193.80 Central wavelengths: 1544.53,1545.32,1546.12,1546.92	THz nm
	LCD-FWD4346	Center frequencies: 194.60,194.50,194.40,194.30 Central wavelengths: 1540.56,1541.35,1542.14,1542.94	THz nm
	LCD-FWD4750	Center frequencies: 195.00,194.90,194.80,194.70 Central wavelengths: 1537.40,1538.19,1538.98,1539.77	THz nm
	LCD-FWD5255	Center frequencies: 195.50,195.40,195.30,195.20 Central wavelengths: 1533.47,1534.25,1535.04,1535.82	THz nm
	LCD-FWD5659	Center frequencies: 195.90,195.80,195.70,195.60 Central wavelengths: 1530.33,1531.12,1531.90,1532.68	THz nm
Channel spacing		Flat-topped pattern: 100G	GHz
Insertion loss (Exp In to Sig Out)		≤3	dB
Insertion loss (Sig In to Exp Out)		≤2	dB
Add to Sig Out		≤2	dB
Insertion loss (Sig In to Drop)		≤2	dB
3dB bandwidth		> 75	GHz

Adjacent channel isolation degree		> 25	dB
Co-frequency isolation		> 30	dB
Environment	Working temperature	-10°C ~ +60°C	°C
	Storage temperature	-40°C ~ +85°C	°C
	Relative humidity	5%~95% No condensation	
Power dissipation		≤15	W



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