Product Brochure

Huawei OptiXtrans DC908

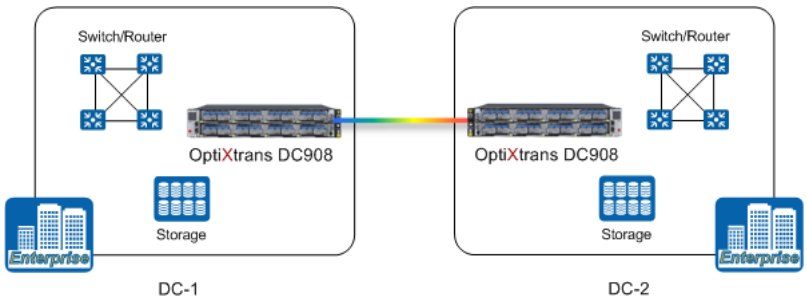
Typical Networking

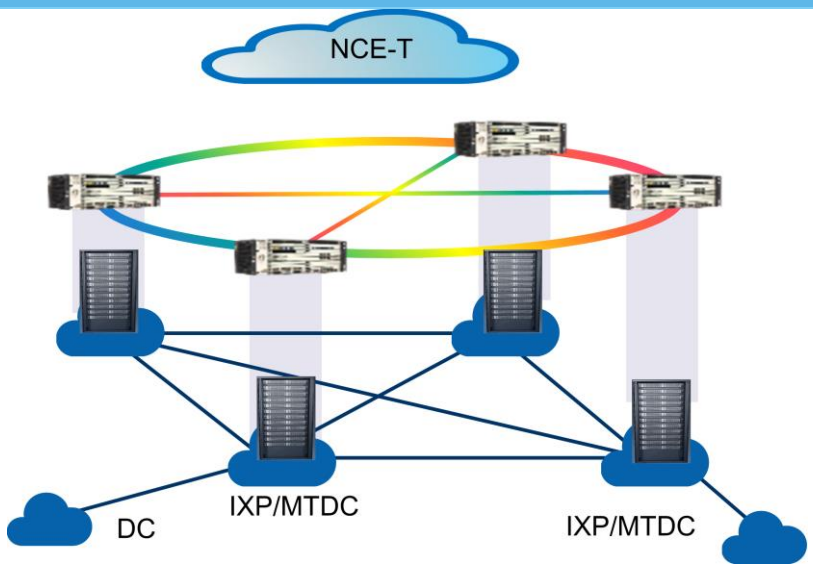
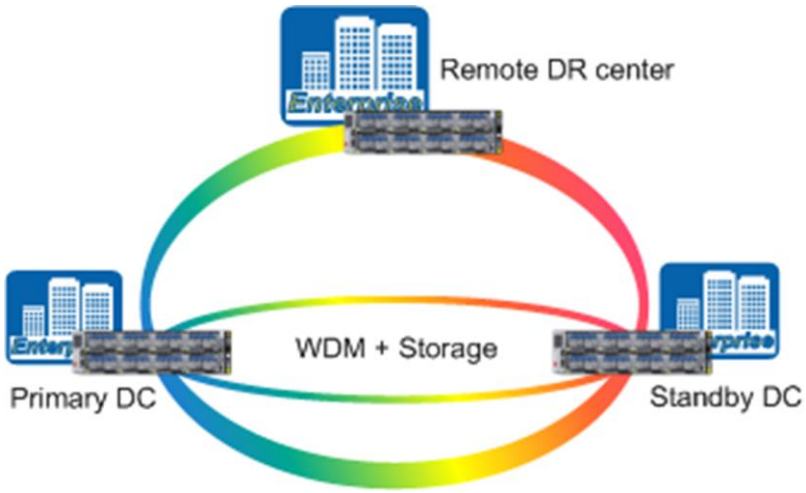
Huawei OptiXtrans DC908 is an optical-electrical integrated WDM transmission device designed for Data Center Interconnect (DCI). It features the highest performance (96T/fiber), simplest design (deployment within 8 minutes from scratch), and highest reliability (twice the industry average). This product helps you cope with DCI challenges in the intelligent era.

Huawei OptiXtrans DC908 is widely applicable to DCI scenarios for industries and enterprises with high digitalization, including OTT providers, MTDCs, IXPs, finance, and large enterprises.

Appearance of Huawei OptiXtrans DC908

Typical application scenarios of Huawei OptiXtrans DC908

Applicable Scenario	Typical Networking
Small networks	Point-to-point/Ring DWDM One OptiXtrans DC908 = High-density electrical-layer device + FOADM + OLA 
Medium-sized and	Full mesh: high-density DCI + ROADM device + NCE-T

Applicable Scenario	Typical Networking
large networks	
Disaster recovery	Three centers in two cities: DWDM  **NOTE** The dual-link solution is recommended for disaster recovery. This solution uses a dual-fiber architecture and dual DWDM devices to implement client-level protection. Two independent DWDM systems transmit data through two independent optical fibers, guaranteeing high service reliability.

Product Highlights

Highest Performance: 96T/fiber

- Maximum capacity
  - 96 Tbit/s@Super C + Super L 240λ per fiber pair, continuous evolution and single-fiber capacity improvement
  - 100G-800G programmable, up to 1.6 Tbit/s per slot, and up to 6.4 Tbit/s@U per subrack
- Minimum power consumption: 0.13 W/G, 35% lower than the industry average

Simplest Design: Deployment Within 8 Minutes from Scratch

- Simplified fiber connections:

- One optical-layer board integrates functions of five traditional optical-layer boards including OA, multiplexer/demultiplexer, add/drop multiplexer, optical supervisory, and optical spectrum analysis boards. This reduces the number of fiber connections inside the optical layer by 90% to simplify the optical layer.
- DLC fibers save 50% fiber connections.

- Fastest deployment:
  - No network planning is required. Devices are plug-and-play. Optical-electrical integration is achieved: Optical-layer and electrical-layer boards are deployed in the same subrack. These boards suit IT and CT equipment rooms and can be deployed with IT devices in the same cabinet.
  - 5A deployment from scratch: Five automatic processes, including fiber auto-discovery, fiber connection auto-verification, wavelength auto-configuration, optical-layer auto-commissioning, and service auto-adaptation, are used to implement one-click automatic deployment and intelligent commissioning in seconds.
  - Hierarchical and diversified management and control solutions, matching different network scales
    - Standard open interfaces: diversified NETCONF/YANG and unified DC management system
    - WebGUI: embedded network-level WebGUI NMS, providing lightweight network management for small DCI networks
    - NCE-T: AI-empowered intelligent O&M of optical networks, providing integrated intelligent network management for large-scale OTT/ISP networks

Highest Reliability: Twice Higher Stability Than the Industry Average

- Device stability
  - Over 620,000 devices are running stably around the world, with the annual fault interruption time less than 1 minute and annual return rate of 0.55%, and stability twice higher than the industry average.
  - Experts with more than 10 years of experience and over 1000 agents in three global service centers, five region-level TACs, three country-level TACs, and five global maintenance verification labs provide 24/7 TAC support in 18 languages.
- Service security
  - High security: The high-security AES256 algorithm is used to encrypt services at the L1 layer.
  - High reliability: Various multi-layer network-level and equipment-level protection schemes are provided. The protection switching latency is less than 50 ms, guaranteeing superior protection performance.

Product Specifications

The following specifications are based on V100R021C00.

Parameter		Description
Chassis	Dimensions (H x W x D)	86.1 mm x 442 mm x 500 mm
	Maximum capacity	12.8 Tbit/s
	Number of service board slots	8
	Applicable cabinet	• ETSI 600/800/1000/1200 mm • 19-inch cabinet
Line-side port	Rate	• 100G (PDM_QPSK) programmable • 100G (PDM_wDCM_QPSK) programmable • 200G (PDM_16QAM) programmable • 200G (PDM_16QAM-H) programmable • 200G (PDM_e16QAM) programmable • 200G (PDM_QPSK) programmable • 400G (PDM_16QAM) programmable • 600G (PDM_16QAM) programmable

Parameter		Description
		• 800G (PDM_e64QAM) programmable
	Optical module	• Fixed wavelength-tunable optical module (MSA) • Pluggable wavelength-tunable CFP2
Client-side port	Service type	10GE, 25GE, 40GE, 100GE, 400GE, OTU4, OTU2, OTU2e, STM-64, FC800, FC1200, FC1600, FC3200, and 10GE WAN
	Optical module	• Pluggable SFP+ and SFP28 • Pluggable QSFP28, QSFP+, and QSFP-DD
Optical power management		ALS, AGC, eALC, and IPA
Maximum number of wavelengths		Fixed grid: 120 wavelengths@50 GHz
Channel spacing		Fixed grid: 50 GHz/75 GHz/100 GHz/150 GHz
Center frequency range		190.7 GHz to 196.65 GHz
Center wavelength range		1524.50 nm to 1572.06 nm
Protection		• Optical line protection • Intra-board 1+1 protection • Client 1+1 protection • LPT
Management interface		CLI/WebGUI/SNMP/iMaster NCE-T/NETCONF
Power supply	Backup	1+1 power supply backup

	AC	• Rated voltage range:
		  – 100 V AC to 130 V AC (50/60 Hz)
		  – 200 V AC to 240 V AC (50/60 Hz)
		• Maximum voltage range: 90 V AC to 290 V AC (47 Hz to 63 Hz)

	High-voltage direct current (HVDC)	• Rated voltage: 240 V HVDC • Maximum voltage range: 192 V HVDC to 288 V HVDC
	DC	• Rated voltage: –48 V DC/–60 V DC • Maximum voltage range: –40 V DC to –72 V DC
Heat dissipation		• Air intake from front and air exhaust from rear • 2+1 fan tray assembly backup
Typical power consumption		676 W
Typical heat consumption		2307 BTU/h
Weight		Full configuration of filler panels: 17 kg Full configuration of service boards: 32 kg
Operating environment	Operating temperature	• Long-term operation: 0°C to 40°C (0 m to 1800 m) • Short-term operation[a]: –5°C to +45°C (0 m to 1800 m) **NOTE** • For altitudes from 1800 m to 4000 m, the highest operating temperature decreases by 1°C for every increase of 220 m in altitude. • a: Short-term operation means that the continuous operating time does not exceed 96 hours and the accumulated time per year does not exceed 15 days.

Parameter		Description
	Transportation/Storage temperature	–40°C to +70°C
	Humidity	5% to 95% (non-condensing)
	Altitude	< 4000 m
	Noise (sound pressure at room temperature 27°C)	< 78 dBA
MTTR		4 hours
MTBF		33.4 years

Huawei Technologies Co., Ltd.

Address:Huawei Industrial Base Bantian, Longgang Shenzhen 518129 People's Republic of China

Website:www.huawei.com