

# Product Brochure

Huawei OptiXtrans E9600 series

The Huawei OptiXtrans E9600 series are intelligent all-optical transmission platforms designed for enterprises. The OptiXtrans E9600 series can be widely used in industries such as ISP, energy, electric power, transportation, education, and finance that are crucial to national economy and people's livelihood, guaranteeing that a large amount of production data is securely and reliably transmitted between metro aggregation, backbone, and data center (DC) networks in major cities.



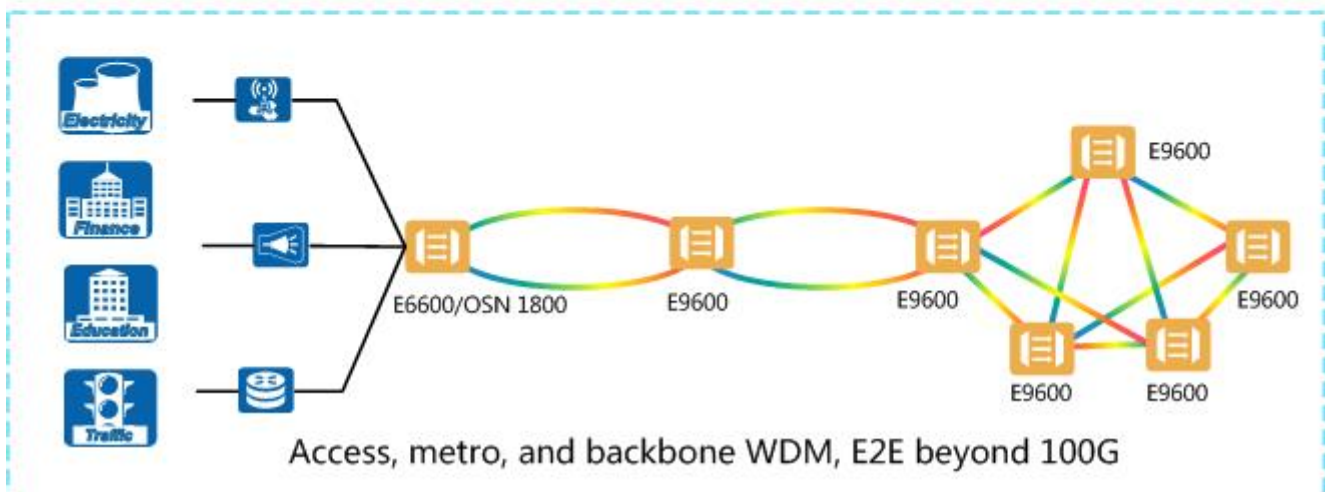
OptiXtrans E9624



OptiXtrans E9612



OptiXtrans E9605



## Product Highlights

### Ultra-Broadband: New Rate + New Spectrum

- Ultra-large capacity, 100 – 800G/wavelength programmable
- Ultra-wide spectrum: 120 wavelengths using Super C-band, which can be extended to C+L band to provide over 200 wavelengths and 48T/fiber capacity

- Optical+Electrical flexible grooming, creating a 3D-mesh high-speed interconnection network

### Simplified: 5-in-1 Platform

- Optical/Ponder/OTN/VC/PKT, 5-in-1, fewer device types required
- Unified grooming and transmission of OTN/VC/PKT services, simplifying network architecture and improving bandwidth utilization

### Intelligent: AI-empowered O&M, shifting O&M mode from reactive to proactive

Virtualized bandwidth operation services based on the SDN design support the transition of WDM networks towards new transmission networks in the cloud era. Online, intelligent, visualized, and big data-based fault prediction is achieved, shifting O&M mode from reactive to proactive, improving service quality, and reducing OPEX.

## Product Specifications (E9624/E9612/E9605)

Specifications		E9624	E9612	E9605
Subrack dimensions (mm)		747.2 (H) x 442 (W) x 295 (D)	347.2 (H) x 442 (W) x 295 (D)	177 (H) x 442 (W) x 295 (D)
Suitable cabinet <sup>a</sup>		<ul style="list-style-type: none"> <li>• ETSI 300/600 cabinets, such as A63B</li> <li>• 19-inch cabinet</li> </ul>		
Max. number of slots for service boards		1:1 cross-connect mode: 12 large slots or 24 small slots 1:3 cross-connect mode: 10 large slots or 20 small slots <b>NOTE</b> The E9624 subrack supports slot splitting. One 11 U slot of the E9624 subrack can be split into two 5.5 U slots.	13	5
Switching capability	Optical	1 to 20-degree reconfigurable optical add/drop multiplexer (ROADM)		
	Electrical	<ul style="list-style-type: none"> <li>• 1:1 cross-connect mode:               <ul style="list-style-type: none"> <li>– 4.8 Tbit/s ODUk</li> <li>– 2.4 Tbit/s packet services</li> <li>– 1.92 Tbit/s VC-4</li> <li>– 80 Gbit/s VC-3/VC-12</li> </ul> </li> <li>• 1:3 cross-connect mode:               <ul style="list-style-type: none"> <li>– 10 Tbit/s ODUk</li> <li>– 2 Tbit/s packet services</li> <li>– 1.6 Tbit/s VC-4</li> <li>– 80 Gbit/s VC-3/VC-12</li> </ul> </li> </ul>	N/A	
Max. number of wavelengths		<ul style="list-style-type: none"> <li>• Fixed grid: 120 wavelengths @50 GHz grid</li> <li>• Flex grid: The maximum number of wavelengths is related to the width of the flex channel.</li> </ul>		
Wavelength range		DWDM system: 1524.50 nm to 1572.06 nm (super C-band) CWDM system: 1471 nm to 1611 nm (S+C+L Band)		
Max. rate per channel		400G bit/s (OTUC4)	400G bit/s (OTUC4)	


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Service type		Synchronous digital hierarchy (SDH)/synchronous optical network (SONET), Ethernet, SAN, OTN, Video		
Packet service capacity		<ul style="list-style-type: none"> <li>Support E-Line/E-LAN (MEF) and VPWS/VPLS (IETF)</li> <li>Support MPLS-TP</li> <li>Number of MPLS tunnel: 64x1024</li> <li>Number of PW: 64x1024</li> <li>Number of E-Line: 32x1024</li> <li>Number of E-LAN: 8x1024</li> </ul>	N/A	
Line rate		2.5Gbit/s, 10Gbit/s, 100 Gbit/s, 200G bit/s, 400G bit/s	10Gbit/s, 100 Gbit/s, 200G bit/s, 400G bit/s	
Supported pluggable optical modules		eSFP, SFP+, TSFP+, CFP, CFP2, QSFP28, SFP28, QSFP+, QSFP-DD	eSFP, SFP+, TSFP+, CFP, CFP2, QSFP28, SFP28, QSFP+	
Topology		Point-to-point, chain, star, ring, ring-with-chain, tangent ring, intersecting ring, and mesh		
Redundancy and protection	Network level protection (OTN)	Client 1+1 protection, ODUK SNCP, tributary SNCP, intra-board 1+1 protection, LPT	Client 1+1 protection, intra-board 1+1 protection, LPT	
	Network level protection (Packet)	ERPS, LAG, PW APS, Tunnel APS	N/A	
	Network Level Protection (OCS)	LMSP, SNCP, Ring MSP	N/A	
	Equipment level protection	Power redundancy, fan redundancy, cross-connect board redundancy, communication control and clock processing unit redundancy	Power redundancy, fan redundancy, communication control unit redundancy, clock processing unit redundancy	
Synchronization		Synchronous Ethernet, IEEE 1588v2, ITU-T G.8275.1/G.8273.2		
ASON		<ul style="list-style-type: none"> <li>Electrical-Layer ASON</li> <li>Optical-Layer ASON</li> </ul>	Optical-Layer ASON	
TSDN		<ul style="list-style-type: none"> <li>Online Service Provisioning</li> <li>Survivability Analysis</li> <li>BOD</li> <li>IP and Optical Collaboration</li> </ul>		
Power Supply		DC power input <ul style="list-style-type: none"> <li>Standard working voltage: -48V DC to -60V DC</li> <li>Working voltage range: -40 V to -72 V</li> </ul>	DC power input <ul style="list-style-type: none"> <li>Standard working voltage: -48V to -60V</li> <li>Working voltage range: -40 V to -72 V</li> </ul> AC power input <ul style="list-style-type: none"> <li>Standard working</li> </ul>	

Specifications	E9624	E9612	E9605
			voltage: 100V AC to 120V AC, and 200V AC to 240V AC High-voltage DC power input <ul style="list-style-type: none"> <li>Standard working voltage: 240V HVDC</li> </ul>
Operation environment	Subrack temperature: <ul style="list-style-type: none"> <li>Long-term operation: 0°C to 45°C;</li> <li>Short-term operation<sup>b</sup>: -5°C to 50°C</li> </ul> Relative humidity: <ul style="list-style-type: none"> <li>Long-term operation: 5% to 85%</li> <li>Short-term operation<sup>b</sup>: 5% to 90%</li> </ul>	Subrack temperature: <ul style="list-style-type: none"> <li>Long-term operation: 0°C to 45°C;</li> <li>Short-term operation<sup>b</sup>: -5°C to 55°C</li> </ul> Relative humidity: <ul style="list-style-type: none"> <li>Long-term operation: 5% to 85%</li> <li>Short-term operation<sup>b</sup>: 5% to 90%</li> </ul>	
Mean Time To Repair (MTTR)	4 hours		
Mean Time Between Failure (MTBF)	66.89 years		
a: The ETSI/19-inch standard defines only part of the cabinet dimensions. Therefore, the distance between the cabinet column and door plate varies depending on cabinet manufacturers. For details about the dimensions of different subracks, see the detailed description of each subrack. b: 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.			

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