OptiX OSN 9800 K36

Huawei OptiX OSN 9800 K Series

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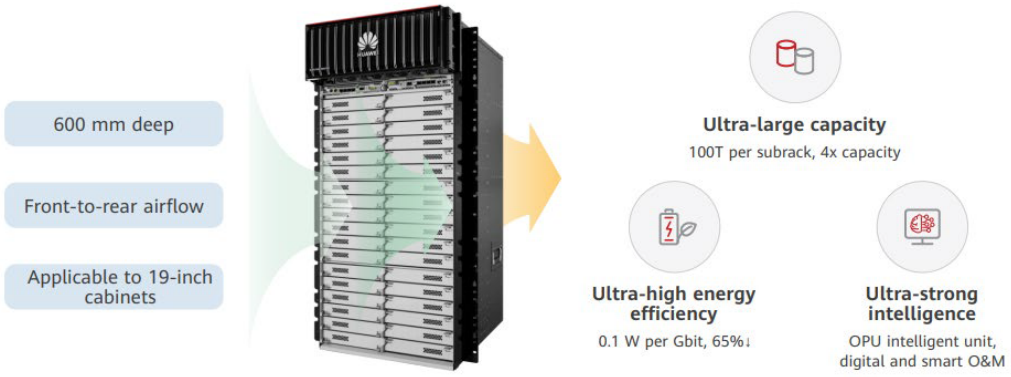
The OSN 9800 K36 subrack is a 400G OTN transmission device that features ultra-large capacity, ultra-high energy efficiency, and powerful intelligence for data centers.



Product Highlights

Ultra-Large Capacity

- Dual 3D orthogonal architecture, flexible splitting of service board slots, 1.6T/3.2T per slot, and 100T per subrack
- Single-carrier 400G/800G/1.2T, working with a Super C+L band optical system to achieve 96T per fiber

Ultra-High Energy Efficiency

- The front-to-rear airflow design for DC equipment rooms improves heat dissipation efficiency and adapts to the energy-efficient DC equipment rooms with PUE less than 1.2.
- The subrack supports DC/HVDC/AC power supplies, power supply pooling management, and intelligent PSU hibernation upon light subrack load to efficiently supply power.
- Area-based intelligent fan speed adjustment saves energy and reduces noise.

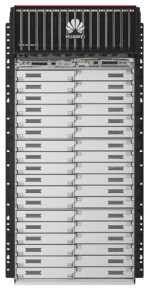
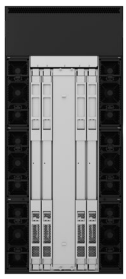
Ultra-strong Intelligence

- The built-in OPU computing unit of the subrack improves intelligent O&M capabilities of the system and supports precise construction of digital optical networks.

Product Specifications (K36)

OSN 9800 K36 subracks are large-capacity, energy-efficient, and intelligent OTN products oriented to 400G and higher rates. They are applicable to various network layers, such as super backbone and backbone networks.

The specifications are as follows:

Item	Specification		OSN 9800 K36
--	Product appearance		 
Mechanical specifications	Subrack dimensions (H x W x D)		997.5 mm x 442 mm x 582.4 mm
	Applicable cabinet[a]		A66B 19-inch
	Maximum number of slots for service boards		36
Device capability	Switching capacity	Optical layer	N/A
		Electrical layer	• 1:1 mode: 14.4 Tbit/s • 1:2 mode: 28.8 Tbit/s • 1:3 mode: 57.6 Tbit/s
	Maximum number of wavelengths		• Fixed grid: – C-band: 120 wavelengths @50 GHz – L- band: 120 wavelengths @50 GHz • Flexible grid: The maximum number of wavelengths is related to the width of the flex channel.
	Center wavelength range		DWDM: 1524.50 nm to 1572.06 nm (super C-band) DWDM: 1575.37 nm to 1626.21 nm (super L- band)
	Maximum single-channel rate		800 Gbit/s (OTUC8)
	Supported service type		SDH/SONET, Ethernet, SAN, OTN, video
	Line rate		100 Gbit/s, 200 Gbit/s, 400 Gbit/s, 500Gbit/s, 600 Gbit/s, 700Gbit/s, 800 Gbit/s
	Supported pluggable optical module		eSFP, SFP+, CFP2, QSFP28, SFP28, QSFP-DD
	Network topology		P2P, chain, star, ring, ring-with-chain, tangent ring, intersecting ring, mesh
Feature	Redundancy and protection	Network-level protection (OTN)	Client 1+1 protection, intra-board 1+1 protection, LPT, ODUk SNCP, tributary SNCP
		Device-level protection	Power supply redundancy, fan redundancy, cross-connect redundancy, communication control and clock unit redundancy

Item	Specification	OSN 9800 K36
	OSU	Not supported
	FlexE	Supported
	LLDP	Supported
	L1 service encryption	Supported
	Optical power management	ALS
	Synchronization	• Synchronous Ethernet • IEEE 1588v2 • ITU-T G.8275.1 • ITU-T G.8273.2 • High-precision clock synchronization
	ASON	Optical-layer ASON, electrical-layer ASON
	TSDN	• E2E fast service provisioning • Bandwidth on demand (BoD) • Scheduled service provisioning (BC) • Visualized resource utilization • Latency map
Network management	Master-slave subrack management	Supported
	DCN	Supported
Operating environment	Power supply	DC power supply • Standard operating voltage: –48 V DC • Operating voltage range: –48 V DC: –40 V to –57.6 V AC power input • Standard operating voltage: 110 V AC/220 V AC • Operating voltage range: – 110 V AC: 100 V to 130 V – 220 V AC: 200 V to 240 V High-voltage DC power input • Standard operating voltage: 240 V/336 V HVDC • Operating voltage range: 240 V to 336 V
	Operating environment	Subrack temperature: • Long-term operation: 5°C to 40°C • Short-term operationb: –5°C to +45°C Relative subrack humidity: • Long-term operation: 5% to 85% Short-term operation[b]: 5% to 90%
Reliability	Mean time to repair (MTTR)	1 hour[c] **NOTE** The MTTR is related to the specific configuration of a device, including the average time for locating a fault on site, replacing a board, restarting the device, and recovering services. The traveling time is not included.

Item	Specification	OSN 9800 K36
	Mean time between failures (MTBF)	145.05 years[c]
	Availability	0.999996852[c]

a: The ETSI/19-inch standard defines only part of the cabinet dimensions. Therefore, the distance between the cabinet column and the door panel varies according to the cabinet vendor. For details about the cabinet dimensions required by different subracks, see the subrack description.

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.

c: The preceding specification values are calculated based on the typical product configuration. The specifications vary according to the configured modules.

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