

Huawei OptiX OSN 1500



Universal Transport Platform for Metro Access

- Large Capacity: 60G TDM / 8G Packet universal switch
- High Reliability: Network-level, equipment-level, and service-level protection
- Future-proof: Packet and TDM services transported by one product

Large switching capacity

- 60G higher order, 20G lower order

High integration

- OSN1500A: Subrack dimensions 131 mm (H) x 444 mm (W) x 263 mm (D), 10 slots for processing boards
- OSN1500B: Subrack dimensions 221mm (H) x 444mm (W) x 263mm (D), 12 slots for processing boards and 14 slots for interface boards

Flexible networking capacity

- Supporting Mesh networking, network nodes plug and play
- Supporting dynamic increase of rate and capacity
- Supporting chain, ring, tangent rings, intersecting rings, etc networking topologies
- Supporting maximum 1 STM-16 four-fiber MSP rings, 2 STM-16 two-fiber MSP rings, 4 STM-4 four-fiber MSP rings, 9 STM-4 two-fiber MSP rings

Carrier-class protection

Mesh Protection and restoration (ASON)

- Distributed restorable rerouting protection
- 5-level service dedicated protection scheme based on different SLA: Diamond, Gold, Silver, Copper and Iron services

SDH Network Protection

- 2/4 fiber MSP Ring; 1+1, 1: n Linear MSP; SNCP/SNCMP/SNCTP; Fiber shared virtual path protection; Fiber shared MSP Ring; DNI (ITU-T G.842)

Service Protection

- Ethernet: RPR, RSTP
- ATM: VP-RING/VC-RING

Highly reliable design

- 1+1 hot backup for system control boards, cross-connect and synchronous timing boards
- 1+1 hot backup for power supply modules
- Redundancy protection for fan modules
- TPS protection
- 1:n tributary protection for E1/T1/E3/T3/ E4/STM-1(e)/FE

Focused on enterprise features

- Intelligent ASON based Mesh network can against multi-node failures, improving network reliability by 10 times
- Built-in PCM for real All-in-One solution to access low speed services for enterprise customer
- Single-span transmission for a distance of 270km without Raman amplifier, less REGs to reduce the network construction cost and facilitates the maintenance
- Specified 2M optical interface to support direct connection between MSTP equipment and relay protection device, lower risk and higher reliability

Industrial Certifications Ensure Reliable Operation

- Compliant with EN 50121-4, IEC 61850-3, IEC 61000-6-5, IEEE 1613

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Specifications	OSN 1500A		OSN 1500B
Dimensions	131 mm (H) x 444 mm (W) x 263 mm (D)		221 mm (H) x 444 mm (W) x 263 mm (D)
Switch Capacity	TDM: 60 Gbit/s (higher order), 20Gbit/s (lower order) Packet: 8 Gbit/s		
Service Slots	10 slots for processing boards		12 slots for processing boards and 4 slots for interface boards
Supported Interface	MSTP interfaces	STM-1/4/16, E1/E3/E4/T1/T3, FE/GE, DDN, IMA/ATM, FEC/EFEC interface, E1 optical interface, SAN, Video	
	PCM interfaces	FXS/FXO, 2/4 wire audio and E&M X.21/V.35/V.11/V.24/V.28, RS232/RS422, RS449/RS423A/RS422A, RS530/RS530A, RS485, G.703 64 kbit/s codirectional; IEEE C37.94	
	Packet transport interfaces	E1, FE, GE	
	WDM interfaces	40-channel DWDM interfaces, compliant with ITU-T G.694.1 8-channel CWDM interfaces, compliant with ITU-T G.694.2	
Networking Mode	Supporting pure packet, hybrid (packet + SDH) or SDH networking Supporting WDM networking Supporting single-fiber bidirectional transmission		
Power Supply	-38.4~ -72V DC; 110/220V AC (External module)		
Operation Environment	Temperature	Relative Humidity	
	Long term: 0°C ~ 45°C Short term: -5°C ~ 55°C	5% ~ 85% 5% ~ 95%	
Ethernet Feature	E-Line and E-LAN, QinQ MPLS-TP based VPWS and VPLS Multi-section pseudo-wire (MS-PW) ETH PW3, TDM PW3, ATM/IMA PW3 IGMP Snooping V2 Blacklist, Broadcast packet suppression, ACL VLAN SWAP		
PCM Feature	Voice or data Conference/Meeting, P2MP, MP2MP FXO/FXS mode can be set by software E&M Interface voltage can be set by software (-48V/-12V) E&M signaling can be set by software (Bell types I, II, III, IV, V and British Telecom SSSDC5)		
QoS	Hierarchical QoS scheduling and traffic shaping DiffServ mode based on traffic classification, eight priority queues Simple traffic classification, complex traffic classification, per hop behavior (PHB), and ACL Committed access rate (CAR), shaping based on port scheduling priority PQ scheduling priority, weighted fair queuing (WFQ) and PQ+WFQ queuing Tail drop and weighted random early detection (WRED)		
OAM	MPLS OAM	LSP/PW OAM: FDI, BDI, CV, FFD, TraceRoute, Ping, LM, DM PW OAM: CES PW VCCV	
	Ethernet OAM	ETH-CC, ETH-Loopback, ETH-Link Trace, Remote Loopback, Remote Fault Detection, RMON(RFC 2819)	
Protection	Equipment-level Protection	Cross-connect 1+1 backup, control board 1+1 backup and power 1+1 backup, clock 1+1 backup	
	MPLS based Service Protection	LSP/PW Linear protection LAG	
	SDH based Service Protection	2/4 fiber MS-SP Ring; 1+1/1:n (n<=14) Linear MSP SNCP/SNCP/ SNCTP 1:N tributary protection for E1/T1, E3/T3, E4, STM-1(e) and FE	
	ASON	Distributed restorable rerouting protection 5-level service dedicated protection scheme based on different SLA: Diamond, Gold, Silver, Copper and Iron services	
Synchronization	Both Ethernet and SDH networks supporting clock synchronization Supporting G.813, Synchronous Ethernet Adaptive clock recovery (ACR) Two external clock inputs/outputs (2 MHz or 2 Mbit/s)		