



OptiX OSN 1500 Product Specifications

Parameters	OSN 1500A	OSN 1500B
System Features		
Subrack dimensions	131 mm (H) x 444 mm (W) x 263 mm (D)	221 mm (H) x 444 mm (W) x 263 mm (D)
Switching capacity	Packet: 8 Gbit/s and TDM: 20 Gbit/s (higher order), 20Gbit/s (lower order)	
Service slots	10 slots for processing boards	12 slots for processing boards and 4 slots for interface boards
Highly reliable design	<ul style="list-style-type: none"> • 1+1 hot backup for power supply modules, system control boards, cross-connect and synchronous timing boards • Redundancy protection for fan modules 	
Supported interfaces	Packet transport interfaces	E1, FE/GE
	MSTP interfaces	STM-1/4/16, E1/E3/E4/T1/T3, FE/GE, DDN, IMA/ATM, FEC/EFEC interface, E1 optical interface, SAN, Video
	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	<ul style="list-style-type: none"> • 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 Long term: 0°C ~ 45°C Short term: -5°C ~ 55°C	Relative Humidity 10% ~ 90% 5% ~ 95%
Packet Transport Features		
Service features	<ul style="list-style-type: none"> • E-Line and E-LAN • QinQ • VPWS and VPLS • Multi-section pseudo-wire (MS-PW) • TDM PWE3: CESoPSN and SAToP, compression of idle timeslots • ETH PWE3 • IGMP SNOOPING V2 • Blacklist, Broadcast packet suppression • VLAN SWAP 	
QoS features	<ul style="list-style-type: none"> • Hierarchical QoS scheduling and traffic shaping • DiffServ mode based on traffic classification • Simple traffic classification, complex traffic classification, per hop behavior (PHB) • Committed access rate (CAR) • PQ scheduling priority, weighted fair queuing (WFQ) and PQ+WFQ queuing • Tail drop and weighted random early detection (WRED) • Eight priority queues • Shaping based on port scheduling priority 	

Hardware-based OAM	MPLS OAM	LSP/PW OAM: <ul style="list-style-type: none"> • FDI, BDI • CV, FFD, TraceRoute, Ping • CES PW VCCV • LM, DM
	Ethernet OAM	<ul style="list-style-type: none"> • ETH-CC(Continuity Check)、ETH-Loopback、ETH-Link Trace • Remote Loopback、Remote Fault Detection
	<ul style="list-style-type: none"> • RMON(RFC 2819) 	
Carrier-class protection	<ul style="list-style-type: none"> • LSP/PW Linear protection • Anti multifaailure protection based on MS-PW • Link aggregation group (LAG) protection • LPT 	
Clock synchronization	<ul style="list-style-type: none"> • Two external clock inputs/outputs (2 MHz or 2 Mbit/s) • Two external time signals(1pps+TOD) • Adaptive clock recovery (ACR) • Synchronous Ethernet • IEEE 1588v2 	
MSTP Features		
Carrier-class protection	<ul style="list-style-type: none"> • 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 MS-SP Ring; 1+1, 1:n (n<=14) Linear MSP; SNCMP/SNCMP/SNCTP; Fiber shared virtual path protection; Fiber shared MS-SP Ring; DNI (ITU-T G.842) • Service Protection Ethernet: RPR, RSTP, LAG/DLAG/PPS/BPS ATM: VP-RING, PPS/BPS • Electrical Interface Protection 1:N tributary protection for E1/T1, E3/T3, E4, STM-1(e) and FE 	
Multi-service Transport Features	<ul style="list-style-type: none"> • Ethernet Over SDH GFP/LAPS/VCAT/LCAS L2 switch, 64 aggregation directions for powerful Ethernet convergence Mapping granularity, VC-12-nv/VC-3-nv, and VC-4-nv Point to Point LPT, Point to Multi-point LPT MPLS and Stackable VLAN for L2 VPN 4/8-level CoS, CAR based on 64K granularity IEEE 802.3ah, 802.1ag • RPR Automatic topology discovery 3-level CoS , A(A0/A1) / B(B-CIR/B-EIR) / C Steering/Wrapping/Steering + Wrapping protection scheme guarantee 50ms switching Spatial reuse of bandwidth with fairness algorithm Integrated MPLS with RPR to provide VLL/VPLS service • ATM Support 2M, 34M, 155M, 622M ATM and IMA E1 support up to 93 IMA group & 189 E1s • Others Support FC/ESCON/DVB-AS/ HD-SDI/SD-SDI Support DDN(Nx64K) and Framed E1 	
Clock synchronization	<ul style="list-style-type: none"> • Two external clock inputs/outputs (2 MHz or 2 Mbit/s) • Line clock source • Tributary clock source 	