Huawei OptiX OSN 7500 II

MPLS-TP based Transformer for Metro Aggregation & Core

- **Large Capacity:** 320G Packet / 360G TDM universal switch, 16 service processing slots and 16 service interface slots.
- **Ultra Broadband:** Smart 40G line transport in one port, 100G line ready.
- **Future-proof:** OTN switch hardware ready.

Smart Transport for Multiservice Universal Switch and Transport

- Smart transport based on universal switch and smart line card for all types of services in any possible mix, including Ethernet, ATM, TDM, and future services.
- Universal switch at any level of packet and TDM in their original format, high efficiency and best performance, '0' waste of bandwidth.
- Smart line card for packet and TDM multiservice universal transport in one port, carefree evolution among different types of services, '0' waste of investment.

MPLS-TP for Highly Efficient and Highly Available Packet Transport

- Guaranteed Performance from end-to-end committed bandwidth mechanism.
- 99.999% availability: 50ms recovery for both linear and ring applications.
- SDH-like OAM mechanism capable of fast detection and troubleshooting, including end-to-end performance monitoring.

PID inside for Tailored Metro Ultra Broadband Transport

- Integrating OTU, MUX and DEMUX boards by a PID chip, providing 40G/100G capacity per port and larger in future.
- SDH-like O&M without complicated photonic layer design such as wavelength planning and OSNR calculating, with less patch cords and fiber operations, time to market greatly reduced.
- 50% footprint saving and 50% power consumption reduction.

TP-Assist for Easy O&M

- MPLS-TP based O&M solution 'TP-Assist' providing efficient planning, fast deployment and easy maintenance, making the large-scale packet network easily manageable.
- Traffic based crystal clear O&M is supported with visual network-level view, graphical format to display end-to-end service configuration, performance and status.
- Maintenance experience even better than SDH: visualized end-to-end bandwidth management, intelligently locating 92% failure, analyzable and predicable network management.

Specifications	OSN 7500 II	
Dimensions	800mm (H) x 496mm (W) x 295mm (D)	
Switch Capacity	Packet: 320 Gbit/s and TDM: 360 Gbit/s (higher order), 40 Gbit/s (lower order)	
Service Slots	32 slots, 16 slots for interface boards and 16 slots for processing boards with same bandwidth per slot	
Supported Interface	OTN interface	OTU-2, OTU-3(40G, compliant with OTL3.4 standard)
	Ethernet interface	FE/GE/10GE/40GE
	SDH interface	STM-1/4/16/64
	PDH,data and voice interface	E1/T1, E3/T3, E4, DDN, PCM
	ATM interface	E1, STM1
	WDM interface	40 DWDM wavelengths, compliant with ITU-T G.694.1 8 CWDM wavelengths, 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	
Operation Environment	Temperature / Relative Humidity Long term: 0°C ~ 45°C / 10% ~ 90% Short term: -5°C ~ 55°C / 5% ~ 95%	
Ethernet Feature	• E-Line and E-LAN, QinQ • MPLS-TP based VPWS and VPLS • Multi-section pseudo-wire (MS-PW) • ETH PWE3, TDM PWE3, ATM/IMA PWE3 • IGMP Snooping V1/V2/V3 • Blacklist, Broadcast packet suppression, ACL • VLAN SWAP	
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-TP OAM	LSP/PW OAM: • CC, LB, LT • AIS, RDI • LM, DM • LCK, TST • CSF
	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	Universal Cross-Connect, System Control and Clock Processing Board 1+1 backup and power 1+1 backup
	MPLS-TP based Service Protection	• LSP/PW Linear protection, Ring protection • Anti multifailure protection based on MS-PW • LAG, MC-LAG, Dual-homing protection, LPT
	SDH based Service Protection	• Mesh Protection and restoration (ASON) • 2/4 fiber MS-SP Ring • 1+1/1:n (n<=14) Linear MSP • SNCP/SNCTP • 1:N tributary protection for E1/T1, E3/T3, E4, STM-1(e) and FE
Synchronization	• Both Ethernet and SDH networks supporting clock synchronization • Supporting G.813, Synchronous Ethernet and IEEE 1588v2 synchronization • Adaptive clock recovery (ACR) • Two external clock inputs/outputs (2 MHz or 2 Mbit/s) • Two external time signals (1pps+TOD)	