

# OptiX OSN 1500B/2500/3500 - Official Technical Overview & Hardware Datasheet

## PRODUCT IDENTIFICATION AND LIFECYCLE STATUS

This document serves as the definitive technical reference and end-of-life guide for the Huawei OptiX OSN 1500B, OSN 2500, and OSN 3500 series optical transmission platforms. It provides a comprehensive overview of system architectures, hardware specifications, and official product lifecycle milestones. Network operators, procurement specialists, and systems engineers are advised to reference this guide for migration planning and asset management strategies.

The OptiX OSN 1500B, OSN 2500, and OSN 3500 constitute a family of next-generation SDH/MSTP optical transport systems. These platforms were widely deployed in metropolitan area networks (MANs), wide area networks (WANs), and enterprise core networks, offering flexible service access and high-capacity cross-connect capabilities. However, consistent with industry-standard product lifecycle management, these models have entered their end-of-life (EOL) phases. This guide consolidates all relevant end-of-sale (EOS), end-of-service (EOS), and end-of-marketing (EOM) notifications to assist in network evolution planning.

The OSN 1500B is an enhanced version of the original OSN 1500A, offering a compact form factor suitable for access and edge deployments. The OSN 2500 provides medium-capacity aggregation capabilities, while the OSN 3500 serves as a high-capacity node for regional and core network applications. Each system shares a common unified switching architecture, allowing for consistent service provisioning across different network layers .



## SYSTEM HARDWARE TOPOLOGY AND ARCHITECTURE OVERVIEW

The OptiX OSN series employs a unified switching architecture, enabling simultaneous support for Time-Division Multiplexing (TDM) and packet-based services. This design allows network operators to seamlessly transport voice, data, storage, and video services over a single, converged infrastructure. The platform supports native SDH/SONET multiplexing alongside Ethernet and IP

services, making it a true multi-service provisioning platform (MSTP).

The OSN 3500 is recognized as an ASON-capable device, featuring Generalized Multi-Protocol Label Switching (GMPLS) control plane intelligence. This enables mesh network topologies and automated service restoration, representing a significant technological advancement over earlier SDH platforms such as the OptiX 2500+ . The OSN 2500 and OSN 1500B share these architectural principles, scaled to fit their respective capacity and form-factor targets.

A critical aspect of the OSN series hardware is the differentiation between standard and 'B2' class boards. B2 class boards were introduced in later software releases (e.g., R9) and feature different software compatibility matrices. Operators are advised to verify board types via the physical label on the board faceplate or using CLI commands such as `cfg-get-bddetailinfo` before performing software upgrades. Failure to identify B2 boards correctly can result in software mismatches and the potential for hardware damage if improper downgrade procedures are attempted .

## DATA & CONTROL PLANE CAPABILITIES

All three platforms support a hierarchical protection and switching framework, ensuring carrier-grade availability. Redundancy features include 1+1 protection

for cross-connect and clock units, power supply units, and TPS (Tributary Protection Switching) groups for E1/T1/E3/T3 and FE interfaces. The OSN 1500B supports up to 4 TPS groups, providing granular protection for access circuits.

The control plane, fully implemented in the OSN 3500 and supported in the OSN 1500B/2500, leverages IP-based signaling for dynamic bandwidth allocation and restoration. This soft-permanent connection capability enables efficient bandwidth utilization and rapid service re-provisioning in response to network failures, a key requirement for modern carrier networks.

## COMPONENT BREAKDOWN AND FUNCTIONAL MODULES

The modular chassis design of the OSN series accommodates a variety of interface boards and service processing units. Common service modules include:

- **SDH Interface Boards:** STM-1/4/16 optical and electrical interface boards for traditional TDM connectivity.
- **Ethernet Processing Boards:** GE and FE interface boards supporting Ethernet Private Line (EPL) and Ethernet Virtual Private Line (EVPL) services.
- **PDH Interface Boards:** E1/T1, E3/T3 boards for legacy circuit emulation.
- **Cross-Connect & Clock Boards:** Core switching and timing units, often

designed with 1+1 redundancy.

- **WDM Add-on Modules:** Internal WDM capabilities for optical wavelength multiplexing, enabling single-fiber bidirectional transmission and enhanced fiber utilization .

The OSN 3500 notably offers higher board density and a larger port count than the OSN 2500, with the 2500+ earlier model requiring a higher number of chassis to match the capacity of a single OSN 3500 node. This made the OSN 3500 a highly efficient choice for space-constrained central offices .

#### OFFICIAL END-OF-LIFE (EOL) MILESTONES

Per official Huawei announcements, the product lifecycle milestones for the OSN 1500B, OSN 2500, and OSN 3500 are as follows. These milestones govern the availability of hardware, spares, and technical support.

- **OSN 1500B:** The end-of-sale (EOS) for new systems and expansion orders was declared effective December 31, 2019. The end-of-sale for spare parts followed on December 31, 2020. As of these dates, no further hardware orders are accepted .

- **OSN 2500 and OSN 3500:** Huawei officially ceased service and support for the V100R002 versions on December 30, 2010. More recent bulletins and

industry analysis indicate that the OSN 1500, OSN 2500, and OSN 3500 hardware platforms are scheduled to reach their final end-of-service life by the end of 2024 .

These dates mark the absolute termination of formal technical support, including bug fixes, security patches, and TAC (Technical Assistance Center) assistance. Network operators operating these systems beyond the specified EOL dates do so at their own risk without the benefit of manufacturer support.

#### OPERATIONAL SPECS MATRIX

<b>Product Model</b>	<b>End-of-Sale (EOS) Date</b>	<b>End-of-Service (EOS) Date</b>	<b>Recommended Replacement</b>
OSN 1500B	December 31, 2019	December 31, 2024	OptiX OSN 1800
OSN 2500	V100R002: Dec 30, 2010 / Hardware: Dec 31, 2024	December 31, 2024	OptiX OSN 1800
OSN 3500	V100R002: Dec 30, 2010 / Hardware: Dec 31,	December 31, 2024	OptiX OSN 1800

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## REGULATORY COMPLIANCE AND MIGRATION PATHWAYS

The OptiX OSN 1500B, 2500, and 3500 platforms comply with relevant ITU-T standards for SDH/SONET and optical networking. They meet RoHS (Restriction of Hazardous Substances) environmental directives, reflecting Huawei's commitment to green manufacturing and sustainability .

Huawei has formally designated the **\*\*OptiX OSN 1800\*\*** series as the primary replacement platform for the OSN 1500B, OSN 2500, and OSN 3500 . The OSN 1800 offers superior capacity, enhanced packet-processing capabilities, and a future-proof architecture designed to support growing bandwidth demands. It provides backward compatibility for legacy services while enabling a smooth migration to next-generation transport networks.

Given the confirmed end-of-service status, a formal migration strategy is essential. Operators are strongly encouraged to evaluate their existing network infrastructure and develop a transition plan to current-generation platforms. Engaging with Huawei or authorized partners for a Network Evolution Assessment can identify optimal replacement strategies and minimize

operational disruption.

