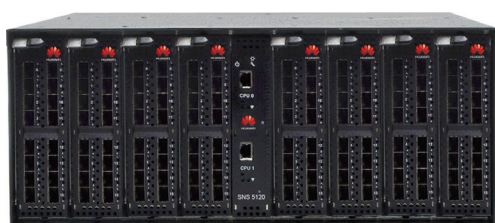


# OceanStor SNS5120 Data Sheet



OceanStor SNS5120

Huawei OceanStor SNS5120 is an intelligent Fibre Channel storage switching platform featuring high density, performance, and availability. The SNS5120 meets the core switching needs of the large-scale storage area network (SAN) of enterprises and data centers. With its unprecedented scalability, small footprint, easy management and maintenance, and low total cost of ownership (TCO), the SNS5120 stackable switch offers enterprises and datacenters the best choice.

## Highlights

### High Density and High Scalability

- High density: The SNS5120 provides up to 128 ports in a 4 U chassis, with a port density of 32/U, doubling that of counterpart products.
- High scalability: A single 4 U chassis supports 16 to 128 ports in 16 increments.
- Dual-chassis HyperStack: Two SNS5120s can be stacked to provide up to 256 ports with the innovative HyperStack technology.
- Deployment flexibility: The SNS5120 offers ultimate flexibility to be deployed at the core, distribution layer, and edge of a local or remote network or in a distributed manner.

### High Performance and High Reliability

- High bandwidth: The SNS5120 provides a backplane bandwidth of up to 800 Gbit/s based on a full-switching architecture, with all FC ports reaching the maximum rate of 8 Gbit/s full-duplex. The backplane bandwidth reaches 1.6 Tbit/s with a dual-chassis HyperStack configuration. The powerful embedded CPU and I/O blade ASICs promote the transaction performance to the maximum.
- Low latency: Use of dedicated ASIC chips and cut-through routing provides a latency of 0.2  $\mu$ s, the lowest in the industry.
- Failover: Redundancy design of the CPU, power supply, fan, and I/O blade supports hot plugging and failover, ensuring ultra-high 99.999% availability.
- Non-disruptive guarantee: The SNS5120 delivers optimal all-round system reliability with non-disruptive code load activation (NDCLA) for firmware upgrade, I/O StreamGuard, and hardware-enforced zoning.

### Virtualization and Interoperability

- Port virtualization: The N\_Port ID virtualization (NPIV) technology lets multiple N\_Port IDs share a single physical N\_Port. This improves the virtual connection security and allows full integration and interoperability with the virtual machine (VM) solutions of VMware, IBM, HP, and others.
- Industry standard compatibility: The SNS5120 is compatible with FC-SW-2 compliant 8/4/2 Gbit/s Fibre Channel switches made by other vendors.
- Diversified management interfaces: The SNS5120 supports the Simple Network Management Protocol (SNMP), Storage Management Initiative Specification (SMI-S) agent, and application programming interface (API) for integration into third-party management applications.

### Easy and Unified Management

- Embedded Web-based management: The embedded Web-based QuickTools is used to manage the SNS5120. The configuration wizard walks you through switch setup and remote configuration. The zoning wizard provides simple drag-and-drop zoning with fast activation to get the switch ready for immediate use.
- Multi-switch management: A multi-switch fabric formed by stacking or ISL expansion can be logically managed as a single switch to simplify configuration and minimize management costs.
- Multi-fabric management: The Enterprise Fabric Suite application supports advanced management functions of multiple fabrics, including automatic topology discovery, extended distance transmission, mPort, and graphical performance monitoring.

# OceanStor SNS5120 Data Sheet



## Technical Specifications

Model	SNS5120
Hardware Specifications	
Number of ports	FC port: 16 to 256 8 Gbit/s ports (upgradable in 16-port increments)
I/O blades per chassis	A single chassis supports 16 to 128 8/4/2 Gbit/s Fiber Channel ports and a maximum of eight hot-pluggable I/O blades.
Port type	Fabric, Loop, and P2P (universal, self-adaptive)
Rate/Latency	1.0625, 2.125, 4.250, or 8.50 Gbit/s; < 0.2 $\mu$ s at 8 Gbit/s
System bandwidth	One SNS5120: 816 Gbit/s full-duplex Dual-SNS5120 HyperStack: 1632 Gbit/s full-duplex with a non-blocking HyperStack architecture
Point-to-point bandwidth	212 MB/s full-duplex on 1 Gbit/s ports, 424 MB/s full-duplex on 2 Gbit/s port, 850 MB/s full-duplex on 4 Gbit/s ports, 1700 MB/s full-duplex on 8 Gbit/s ports
Multi-switch fabric	All topologies (including stack, cascade, cascaded loop, and mesh), up to 239 switches Adaptive Trunking, intelligent path selection
Medium type	FC port: hot-pluggable, industry-standard 3.3 V SFP+ transceivers for 8 Gbit/s ports, compatible with 4 Gbit/s and 2 Gbit/s SFP transceivers Fiber: 50/62.5 $\mu$ m multi-mode fiber and 9 $\mu$ m single-mode fiber
Maximum frame size	2148 bytes (2112-byte payload)
Software Feature	
Visualized user interface	Indicators for key components, Web-based management GUIs, and fault location indication
Interoperability and certification	Compatible with FC-SW-2 compliant devices, including servers, storage systems, HBAs, and application software of mainstream vendors Certified by FCIA SANmark and SNIA SMI-S
Manageability	Management methods: Web-based QuickTools, CLI, Enterprise Fabric Suite (optional), API, SMI-S, GS-4 Management Server (including FDMI), SNMP, RADIUS, FTP, TFTP, SSL, SSH, Telnet
Zoning	Mandatory hardware zoning, security zoning, and port binding for enhanced security
Physical Specifications	
Power supply	AC: 100 V (10 A) to 240 V (4.2 A), 47 Hz to 63 Hz
Power consumption	< 1008 W
Dimensions (H x W x D)	4 U, 179mm x 431mm x 673 mm
Weight	< 40.82 kg

Copyright © Huawei Technologies Co., Ltd. 2013. All rights reserved.

THIS DOCUMENT IS FOR INFORMATION PURPOSE ONLY, AND DOES NOT CONSTITUTE ANY KIND OF WARRANTIES.

HUAWEI TECHNOLOGIES CO., LTD.

Huawei Industrial Base  
Bantian Longgang  
Shenzhen 518129, P.R. China  
Tel: +86-755-28780808

[www.huawei.com](http://www.huawei.com)