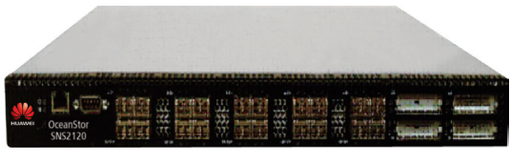
OceanStor SNS2120 Data Sheet



OceanStor SNS2120

Huawei OceanStor SNS2120 is a stackable Fibre Channel (FC) switch applicable in a small and independent storage area network (SAN) and at the edge of a large-sized core switching network. The SNS2120 meets the enterprise SAN switching needs and helps reduce enterprise SAN costs with the superior switching performance, powerful scalability, and easy-to-manage features.

Product Features

Stackable and Scalable

- Unique stackable expansion: One SNS2120 supports up to 20 FC service ports and a scalability of 8–120 FC service ports in a multi-switch stack through the stacking ports. The rate of each stacking port is 10 Gbit/s and upgradable to 20 Gbit/s.
- Inter-Switch Link (ISL) fiber expansion: Port capacity can flexibly scale up through ISL fiber expansion in all topologies including stack, cascade, cascaded loop, and mesh.
- Self-adaptive ports: The self-adaptive service ports automatically adjust to a rate of 8, 4, or 2 Gbit/s and the state of Fabric, Loop, or P2P.
- Adaptive Trunking: The Adaptive Trunking technology pools the capacity of multiple ISL links into a single high-speed pipeline to achieve load balancing and improve the transmission performance and reliability.

Performance and High Reliability

- High bandwidth: The SNS2120 provides a backplane bandwidth of up to 544 Gbit/s based on a full-switching architecture, with all FC ports reaching the maximum rate of 8 Gbit/s full-duplex.
- Low latency: Use of dedicated ASIC chips and cut-through routing provides a latency of 0.2 μs, the lowest in the industry. The shortest path first algorithm helps advance the ISL transmission performance.
- Non-disruptive guarantee: The SNS2120 firmware supports non-disruptive code load activation (NDCLA), eliminating the need of system restart. The I/O StreamGuard feature suppresses the registered state change notification (RSCN) messages on a port basis.
- Enhanced hardware: The SNS2120 delivers optimal all-round system reliability with hot-swappable dual power supplies 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 SNS2120 is compatible with FC-SW-2 compliant 8/4/2 Gbit/s Fibre Channel switches made by other vendors.
- Extensive interoperability: The SNS2120 is interoperable with all storage, server, application, and infrastructure products from mainstream vendors.
- Diversified management interfaces: The SNS2120 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.

Low TCO

- Investment protection: The initial purchase costs of the SNS2120 are low and competitive, and the support for phased upgrade suits a company's long-term investment strategy.
- Port license migration: The mPort movable port activation technology migrates the license of a faulty port to an inactive port so that the inactive port can function.
- Easy management: The on-board Web-based management graphical user interface (GUI) and command line interface (CLI) enable you to perform basic 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.

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Technical Specifications

Model	SNS2120
Hardware Specifications	
Number of ports	FC port: eight to twenty 8 Gbit/s ports (upgradable in 4-port increments) Stacking port: four 10 Gbit/s ports (upgradable to 20 Gbit/s)
Port type	Fabric, Loop, and P2P (universal, self-adaptive)
Port rate	8/4/2 Gbit/s, 10/20 Gbit/s full-duplex (universal, self-adaptive)
Switching latency	< 0.2 µs (at 8 Gbit/s, cut-through routing)
Backplane bandwidth	544 Gbit/s with a non-blocking architecture
Point-to-point bandwidth	FC port: 1700 MB/s full-duplex Stacking port: 5100 MB/s full-duplex
Multi-switch interconnection	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 Stacking port: hot-pluggable, industry-standard XPAK copper cables Fiber: 50/62.5 µm multi-mode fiber and 9 µm single-mode fiber
Maximum frame size	2148 bytes (2112-byte payload)
Software Feature	
Visualized user interface	Indicators for key components, Web-based management GUI, 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	Hardware-enforced zoning, security zoning, and port binding for enhanced security
Physical Specifications	
Power supply	AC: 100 V (1 A) to 240 V (0.5 A), 50 Hz to 60 Hz
Power consumption	< 120 W
Dimensions (H x W x D)	1 U, 43.2mm x 432mm x 500 mm
Weight	8.16 kg (dual power supplies)

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