OceanStor SNS5604-G/SNS5608-G Fibre Channel Switch

Datasheet

Product Overview

The OceanStor SNS 5604-G/5608-G Fibre Channel storage switches are widely proven dedicated network infrastructure for data centers.Using the industry's latest sixth-generation Fibre Channel technology, FabricVision and IOInsight technologies, the switch delivers unmatched 32Gbps performance, seamless scalability and high reliability to ensure greater consistency, predictability and performance of the storage network.

Technical Specification

Model Number	SNS 5604-G	SNS 5608-G
System Architecture		
Number of Ports	Up to 256 32Gbps FC ports plus ICL ports equals up to 320 32Gbps FC ports supported	A maximum of 512 32Gbps FC ports plus ICL ports equals a maximum of 640 32Gbps FC ports
Port Types	FC32-48/FC32-64 Port blades: F_Port, E_Port, EX_Port, M_Port, SIM, and D_Port ; SX6 expansion blades: F_Port, E_Port, EX_Port on FC, and VE_Port on GbE Note: Self-identification based on switch type (U_Port) is implemented with optional port type control	
Port Blade	The FC32-48 blade provides 48 ports and 32Gbps sixth-generation Fibre Channel The FC32-64 port blade provides 64-port 32Gbps sixth-generation Fibre Channel	
Expansion Blades	The SX6 expansion blade provides Fibre Channel expansion (16 32Gbps Fibre Channel ports) and IP network based IP expansion (16 1/10 GbE and 2 40 GbE ports)	
Control Processor	Redundant (master/standby) control processor modules	
Controllable Malleability	Fully connected Fabric architecture with up to 239 switches	
Standard Maximum Number of Supports	6,000 active devices per switch; 56 switches; 19 hops; Larger fabrics can be certified on demand	
ISL Trunking	Frame based link aggregation. Each ISL Trunking has up to 8 32Gbps ports; And up to 256Gbps throughput per ISL Trunking.Use DPS included in FOS to achieve cross-ISL load balancing based on exchange	
Chassis Bandwidth	10.2 Tbps per chassis (256 32Gbps ports) Data rate + 2.048 TbpsUltraScale ICL bandwidth (16×128Gbps)	20.5 Tbps per chassis (512 32Gbps ports) Data rate + 4.096 TbpsUltraScale ICL bandwidth (32×128Gbps)
Slot Bandwidth	At 1,536Gbps (line speed), the FC32-48 blade can provide line speed performance, and the FC32-64 blade provides 1.33:1 congestion ratio performance	
Switch Latency	Sixth generation 32Gbps FC32-48/FC32-64 blade: <780ns (including FEC); Local switching between any port, blade-to-blade delay of 2.6 µs, 32Gbps, pass-through routing; SX6 blade, Fibre Channel to Fibre Channel: <780 ns (including FEC); 2.6µs delay between any ports, 32Gbps, pass-through routing	
Maximum Frame Size	2112 byte payload	
Frame Buffering	ASIC 15,360 per exchange	
Type of Data Traffic	Fibre network switch, supporting unicast, multicast (255 groups) and broadcast	
Level of Service	Class 2, Class 3, Class F(interswitch frame)	
USB	Each control processor contains 1USB Port for firmware downloads, log saving, configuration uploads, or downloads	
Extensions	Support for DWDM, CWDM, and FC-SONET devices; Fibre Channel, Transmission Data Compression (LZO) and encryption (AES-CGM-256); BB credit recovery; FCIP, IP extension, Adaptive Rate Limiting (ARL), data compression, Fast Write, read/write tape pipelined transfer, QoS	
System Components		
ANSI Fibre Channel Protocol	FC-PH(Fibre Channel Physical and Signal Interface Standard)	
Fiber Network Initialization	FC-SW 5.0 compliant	
Port to Port Latency	Local switch: 780 ns Blade to blade 2.6µs	
Swap Capacity	13.5 billion frames per second total switching capacity (for Class 2, Class 3, Class F frames in 384-port chassis)	

High Availability		
Architecture	Non-blocking shared memory; Passive backboard; Redundant active/passive control processor; Redundant active/active core switching blades; Redundant WWN cards	
Ventilation	Provide non-port side air intake to port side exhaust, or port side air intake to non-port side exhaust air options	
Solution Availability	99.999% availability available; Hot-swappable redundant power supplies, fans, WWNS, processors, core switches, port blades, and optical components; Online diagnostics; And uninterrupted firmware download and configuration activation	
Chassis Power Supply	· Two power modules are shipped with the device · You are advised to install two power modules to ensure power supply efficiency and 1+1 redundancy	· Three power modules are shipped with the device by default (3 power modules for minimum 2+1 redundancy) · It is recommended that four power modules be installed to ensure power efficiency and 2+2 redundancy for the system
Cooling	· Comes with 2 fan assemblies · Each fan assembly is hot-swappable. · When a fan fault alarm is generated, replace the faulty fan assembly immediately	· Equipped with 3 fan assemblies · Each fan assembly is hot-swappable. · When a fan fault alarm is generated, replace the faulty fan assembly immediately
Management		
Administration	HTTP, SNMP v1/v3(FE MIB, FC Management MIB), SSH; Auditing, system logging; Web Tools; Command line interface (CLI); SMI-S compliant; RESTful API; Trial licenses for plug-in functionality	
Administrative access	1 10/100/1000 Ethernet (RJ-45) interface per control processor for in-band management via Fibre Channel; Serial port (RJ-45); 1USB interface per control processor module; DHCP/DHCPv6	
Mechanical Parameters		
Housing	8 blade slots: 8U rack mount chassis; 27 "to 31" rails, 18 "to 24" rails, and airflow diverter rack mounting kit for 4-post racks; Intermediate mounting kit for 2-post racks	12 blade slot: 14U rack mount chassis; 27 "to 31" and 22 "guide kit for 4-post racks; Intermediate mounting kit for 2-post racks
Dimensions	Rack installation kit size with air diverter (shipped by default) : Height: 40.00 cm (15.75 in, 9U) Width: 43.74 cm (17.23 in) Depth: 61.29 cm (24.09 in) Dimensions without airflow diverter rack mounting kit: Height: 34.45 cm (13.56 in, 8U) Width: 43.74 cm (17.23 in) Depth: 61.04 cm (24.04 in)	Height: 61.23 cm (24.11 in, 14U) Width: 43.74 cm (17.23 in) Depth: 61.04 cm (24.04 in)
System Weight	Case is 24.5kg (54 lb) 68.95kg (152.0 lb) at full load	Case 35.61kg (78.5 lb) 145.8kg (321.5 lb) at full load
Installation	Rack mount, which can be installed in an EIA compliant 19-inch cabinet	
Environment		
Temperature	Run: 0°C to 40°C (32° F to 104°F) Non-run: -25°C to 70°C (-13° F to 158°F)	
Humidness	Operating Humidity: 5% to 93% relative humidity at 40°C (104°F), non-condensing, maximum rate of change 10% per hour Non-Operating Humidity: 10% to 93% relative humidity at 70°C (158°F), non-condensing	
Altitude	Up to 3,000 m (9,842 ft)	
Impact	Run: 10 g, 11 ms, half sine wave Non-run: 20 g, 11 ms, half sine wave	
Vibration	Run: 5 Hz to 10 Hz @ +5 db/Oct; 10 Hz to 200 Hz @ 0.0005Grms; 200 Hz to 500 Hz @ -5 db/Oct; Scale 0.05 Grms Non-run: 3 Hz to 10 Hz @ +5 db/Oct; 10 Hz to 200 Hz @ 0.0065 Grms; 200 Hz to 500 Hz @ -5db/Oct; Scale 1.12 Grms	
Power Supply		
Frequency	50 Hz to 60 Hz (Regular: 50 Hz to 60 Hz)	

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Guangdong Glory Technology Co., Ltd.

Email: service@glory-t.tech
Hotline: +86 400-800-6805
For more information, please visit www.glory-t.cn