HPE BK780B

Datasheet

Product Overview

- HPE's SN6000B Series positions itself as an advanced solution for high-performance enterprise storage area networks.

- Ideal for data centers moving towards private cloud and demanding virtualization, this switch targets IT managers, integrators, and large organizations.

- Key specifications include up to 48 configurable Fibre Channel ports, support for 16 Gbps speeds, and a space-saving 1U chassis.

- The device features Ports on Demand for smooth scalability, non-stop operation, integrated security, and support for metro cloud connectivity.

- Easy deployment and an intuitive user interface reduce setup time and simplify network management for teams of all skill levels.

- Designed for evolving enterprise environments, SN6000B delivers reliable, secure, and scalable performance to accommodate future storage demands.

Product Highlights

- **High Performance & Density:** Delivers up to 16 Gbps per port, and supports up to 48 ports within a 1U energy-efficient design for versatile data center deployments.

- **Dynamic Scalability:** Ports on Demand (PoD) allows seamless upgrades from 24 to 48 ports in increments of 12, offering flexible growth to suit evolving needs.

- **Industry-Leading SAN Capabilities:** Simplifies SAN deployment with advanced features, supporting multi-tenant, highly virtualized private cloud storage.

- **Secure, Flexible Connectivity:** Features integrated DWDM/dark fiber (optional), plus in-flight compression and encryption for efficient and secure metro connections.

Detailed Features

BK780B

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Component	Specification
Device Ports	12 active FC ports (8 Gb/s SFP+)
Stacking Ports	4 XPAK ports, 10 Gb/s standard, upgradeable to 20 Gb/s
Port Scalability	24 to 48 ports, expanded in increments of 12
Port Speed Support	4, 8, 10, or 16 Gbps per port
Form Factor	1U rack-mountable

16 Gbps High-Performance Architecture

The SN6000B delivers rapid data throughput with 16 Gbps Fibre Channel speed across up to 48 ports. This meets the needs of data centers with high storage bandwidth demands, ensuring low-latency connectivity for critical business applications and future-proofing investments in line with the latest SAN performance standards.

Flexible Ports on Demand (PoD) Expansion

This switch adopts a modular 'Ports on Demand' system, allowing customers to activate additional ports in increments of 12. By scaling from 24 up to 48 ports, organizations can optimize initial investment and adapt to growing workloads without hardware replacement, reducing cost and deployment complexity.

Space-Saving & Energy Efficiency

Engineered in a compact 1U chassis, the SN6000B enhances data center density while minimizing its energy footprint. Efficient cooling and power design reduce operational costs, helping organizations adhere to green IT strategies, and supporting high-density deployments in constrained environments.

Enterprise-Class Redundancy & Availability

Supporting hot-swappable components and non-disruptive upgrades, the SN6000B guarantees continuous uptime. Redundant power supplies and fans ensure reliable operation, meeting the high availability requirements of enterprise data centers and critical workload environments.

Metro Cloud Ready Connectivity

Optional integrated DWDM and dark fiber support enables secure, long-distance connections for metro cloud and inter-data center scenarios. This ensures scalable, flexible network topologies to support business continuity and disaster recovery requirements.

Data Security & Network Efficiency

Built-in in-flight data compression and encryption boost fiber link utilization and safeguard confidential information. These features allow high data throughput without compromising security, using hardware acceleration to minimize performance impact on network operations.

Industry-Leading Cost-to-Performance Value

HPE's solution provides outstanding price/performance compared to similar Ethernet-based alternatives. The bundled model further simplifies procurement by combining switch hardware and multiple 16Gb transceivers, delivering significant cost savings for expanding SAN infrastructure.

Seamless Deployment & Management

A user-friendly interface and streamlined setup tools cut down on configuration time, facilitating integration into both new and existing SAN environments. Flexible management supportSNMP, CLI, serial, and Ethernetgives administrators full visibility and control.

Technical Specifications

Product Specifications

Feature	Value
Part Number	BK780B
Product Type	Stackable Fibre Channel Switch
Device Ports	12 active FC ports (8 Gb/s SFP+)
Stacking Ports	4 XPAK ports
Stacking Ports Speed	10 Gb/s standard
Stacking Ports Upgrade Option	Upgradeable to 20 Gb/s
Supported FC Speeds	2/4/8 Gb/s on device ports
Aggregate Bandwidth	Up to 544 Gb/s per switch (when fully enabled)
Latency	<0.2 µs at 8 Gb/s (intra-switch)
Height	1.70 in (43.2 mm)

Feature	Value
Width	17.0 in (432 mm)
Depth	19.7 in (500 mm)
Dimensions (H×W×D)	1.70 in × 17.0 in × 19.7 in (43.2 mm × 432 mm × 500 mm)
Weight	15 lbs (6.8 kg) for single PSU model
Power Consumption	≈83 W operational (single PSU)
Operating Temperature Min	5 °C
Operating Temperature Max	40 °C
Humidity (Operating) Min	10% non-condensing
Humidity (Operating) Max	85% non-condensing
Management Interfaces	RJ-45 10/100 Ethernet
Management Interfaces (cont.)	RS-232 serial
Management Interfaces (cont.)	SNMP, CLI, SMI-S
Supported Fabric Ports	G_Ports, F_Ports, E_Ports, TR_Ports

Product Comparison

Feature	BK780B	JL253A	834976-B22
Product Type	Stackable Fibre Channel Switch	Managed Layer 2/3 Switch	SAN Switch
Ports	12 active FC ports (8 Gb/s SFP+)	24 × 10/100/1000Base-T + 4 × 1G/10G SFP+	24 × 16Gb FC ports
Port Expansion	24–48 (Ports on Demand, 12-port increments)	Fixed	Fixed
Max Bandwidth	Up to 544 Gb/s per switch	176 Gbps	768 Gbps
Form Factor	1U rack-mountable	1U	1U
Power Consumption	≈83 W operational (single PSU)	45 W	90 W
Redundancy	Hot-swappable PSU and fans	Optional (on some models)	Dual power supplies
Management Features	RJ-45, RS-232, SNMP, CLI, SMI-S	Web, CLI, SNMP, RMON	Web, CLI, SNMP
Target Scenario	Highly virtualized/private cloud storage	Enterprise access/ aggregation	Enterprise SAN backbone

Accessories

Category	Accessories
Included Accessories	- Power Adapter - Rack Mounting Kit - Quick Start Guide
Optional Accessories	- 16 Gb SFP+ Optical Transceiver - Spare Power Supply Unit - Management Cable

Support & Warranty

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References

[1] HPE. (2023). HPE SN6000B Fibre Channel Switch - Technical Datasheet. Retrieved from https://www.hpe.com/psnow/doc/c04111492