# HPE C8R42B

## Datasheet

# Product Overview

- HPE's Storage Fibre Channel Switch B-series SN3600B is built for modern data centers seeking high flexibility and performance.

- This switch is ideal for enterprises, cloud service providers, and IT environments needing scalable, reliable SAN connectivity.

- Key highlights include 32Gb Fibre Channel technology, up to 24 SFP+ ports in a compact 1U design, and support for 4, 8, 16, and 32 Gbps speeds.

- Unique features like dynamic Ports on Demand (PoD) licensing and Smart SAN for 3PAR streamline network scaling and management tasks.

- Integrated HPE PowerPack+ offers advanced SAN health tools, while a simple three-step setup makes initial deployment quick and straightforward.

- The SN3600B delivers consistent high throughput and low latency in virtualized, flash-based, or expanding storage environments, meeting critical business demands.

# Product Highlights

- **32Gb Flash-Ready Performance:** Supports up to 24 x 32Gbps SFP+ ports in a space-saving 1U form factor, tailored for high-speed data centers.

- **Dynamic Ports on Demand:** Expand port capacity easily in 8-port increments, enabling efficient scaling as your SAN grows.

- **NVMe and VM Insight Support:** Delivers NVMe over Fibre Channel and advanced visibility into virtual machine traffic for improved storage performance.

- **Smart SAN Automation:** HPE Smart SAN for 3PAR enables automated zoning, dramatically reducing deployment complexity and time.

# Detailed Features



C8R42B

| Component | Specification |
|---|---|
| Port Configurations | 48, 72, 96-port (in 24-port increments with PoD licenses) |
| Port Speeds | 4/8/16/32 Gbps auto-sensing |
| Form Factor | 1U rack mount |
| PoD Scalability | License-based 8-port increments |
| Optics Support | 16Gb SFP+, 32Gb SFP+ |

## High-Density Fibre Channel Switching

The SN3600B offers 48, 72, and 96-port models, scalable in 24-port increments with licenses. Its 1U size supports dense deployments in space-constrained data centers, making it ideal for growing storage environments with tight budgets.

## Advanced Performance for Flash and Virtualization

Specially designed for all-flash storage and virtualized workloads, it provides up to 32Gb Fibre Channel with minimal latency (<900ns), high IOPs, and up to 1536Gbps bandwidth, delivering responsive data access even under peak loads.

## Flexible Port Licensing with PoD

Dynamic Ports on Demand (PoD) functionality allows expansion in affordable 8-port blocks, combining license and optics in a single kit. This approach ensures that SAN investments grow with your business needs.

## Comprehensive Compatibility and Interoperability

SN3600B integrates smoothly with previous-generation HPE and Brocade Fibre Channel switches and infrastructure, offering seamless migration, interoperability, and investment protection across storage upgrades.

## NVMe over Fabrics and VM Insight

Designed for next-generation storage, the switch is NVMe over Fabrics ready and supports VM Insight for granular monitoring of virtual machine I/O, enabling fast troubleshooting and optimized storage delivery in virtualized data centers.

## Automated Management with Smart SAN

HPE Smart SAN for 3PAR enables centralized, click-based SAN zoning automation, reducing manual configuration from hours to minutes and extending orchestration to high-density 3PAR deployments.

## Advanced Trunking and Low-Latency

The built-in ISL Trunking feature combines up to 8 ports into a single logical link for up to 256Gbps (512Gbps duplex). Cut-through frame switching keeps application and storage latency under 900 nanoseconds, ideal for latency-sensitive workloads.

## Energy Market and Reliability

With real-time power monitoring and back-to-front airflow, it is equipped for global data center efficiency standards. Redundant power supplies, hardware robustness, and proactive SAN health tools ensure consistent long-term operation across diverse environments.

# Technical Specifications

## Product Specifications

| Feature | Value |
|---------|-------|
| Dimensions – Height | 86.74 mm (3.42 in) |
| Dimensions – Width | 429.25 mm (16.90 in) |
| Dimensions – Depth | 609.75 mm (24.01 in) |
| Fibre Channel Ports | 48, 72, 96-port configurations (24-port increments via Ports on Demand licenses) |
| Universal Ports Supported | E, F, M, D, EX ports supported |
| Interoperability | Compatible with 8/8 SAN switch, 8/24 SAN switch, SN3000B, SN6000B, SN6500B, 1606 Extension switch, SN4000B, SN8000B (8/4-Slot), Brocade 8Gb/16Gb switches for HPE BladeSystem c-Class and Synergy |
| Port Performance – Speeds | Auto-sensing 4, 8, 16 Gb/s speeds |
| ISL Trunking | Up to 8 x 16 Gb/s ports per ISL trunk (max 128 Gb/s); Unlimited trunk groups; Exchange-based load balancing with DPS in Fabric OS |
| Aggregate Bandwidth | 1536 Gb/s |

| Feature | Value |
|---|---|
| Fabric Latency | 700 ns (local switching) |
| Encryption/Compression Per Node | 5.5 s |
| FEC Adds Between E_Ports | 400 ns |
| Maximum Frame Size | 2112-byte payload |
| Classes of Service | Class 2, Class 3, Class F (Inter-switch frames) |
| Port Types Supported | D_Port (Diagnostic), E_Port, EX_Port, F_Port, M_Port (Mirror), U_Port (auto discovery), F_Port/NPIV-enabled N_Port in Access Gateway mode |
| Data Traffic Types Supported | Unicast fabric switching |
| Media Types | Hot-pluggable, B-Series Branded SFP, LC connector; supports SWL, LWL; SFP+ (16/10/8 Gb/s) optical transceivers |
| Transmission Distance | Depends on fiber type and speed |
| USB Port | 1 x USB for system log download or firmware upgrade |
| Operating Temperature Min | 0°C (32°F) |
| Operating Temperature Max | 40°C (104°F) |
| Non-operating Temperature Min | -25°C (-13°F) |
| Non-operating Temperature Max | 70°C (158°F) |
| Operating Humidity Min | 10% (non-condensing) |
| Operating Humidity Max | 85% (non-condensing) |
| Non-operating Humidity Min | 10% (non-condensing) |
| Non-operating Humidity Max | 90% (non-condensing) |
| Operating Altitude | Up to 3000 m (9,842 ft) |
| Storage Altitude | Up to 12 km (39,370 ft) |
| Operating Shock | 20G, 6 ms half-sine |
| Non-operating Shock | 33G, 11 ms, half-sine, 3/eg axis |
| Operating Vibration | 0.5G sine, 0.4 grms random, 5 to 500 Hz |
| Non-operating Vibration | 2.0G sine, 1.1 grms random, 5 to 500 Hz |
| Power Supply | Dual, hot-swappable redundant |
| AC Input Voltage | 85 to 264 V, ~5 to 2.5 A |
| Input Line Frequency | 47 to 63 Hz |
| Power Consumption Full | 450 W (96 ports, 16 Gb/s SWL optics) |

| Feature | Value |
|---|---|
| Power Consumption Empty | 350 W (empty chassis, no optics) |
| Encryption / Compression | 5.5 seconds per node |

## Product Comparison

| Feature | C8R42B | C8R07A | AM867D |
|---|---|---|---|
| Form Factor | 1U Rackmount | 1U Rackmount | 1U Rackmount |
| Port Configurations | 48, 72, 96-port (scalable in 24-port increments) | Up to 48 ports | Up to 24 ports |
| Supported Speeds | 4/8/16/32 Gbps auto-sensing | 8/16/32 Gbps | 8/16/32 Gbps |
| Dynamic PoD Licensing | Yes, 8-port increments | Yes, per 8/24 ports | Yes, expandable |
| NVMe Support | Ready | Not specified | Not specified |
| Interoperability | Broad backwards compatibility | Legacy FC support | Legacy FC support |
| Management | Smart SAN, centralized management | Standard management | Standard management |
| Power Redundancy | Dual hot-swappable | Dual hot-swappable | Dual hot-swappable |
| Target Workloads | Flash, virtualization, cloud | General SAN, virtualization | Entry to mid SAN |

## Accessories

| Category | Accessories |
|---|---|
| Included Accessories | - Power Cords<br>- Rack Mount Kit<br>- Quick Start Guide |
| Optional Accessories | - 16Gb/32Gb SFP+ Transceivers<br>- Additional Ports on Demand License Kits<br>- Advanced Management Software Suite |

## Support & Warranty

| | | | | | |
|---|---|---|---|---|---|
| 24/7 Online Service | 3-Year Premium Warranty | Professional Technical Support | 100% Low Price Guarantee | 100% Quality Assurance | 100% Money Back Guarantee |

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# Global Footprint

Global Warehouses & Service Centers Across Continents.



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# References

[1] HPE. (2023). Storage Fibre Channel Switch B-series SN3600B Datasheet. Retrieved from https://www.hpe.com/psnow/doc/a00000578enw.html