



CONNECTRIX B-SERIES DS-7720B 56-PORT SWITCH

64Gb/s Data Center Switch

Overview

The Connectrix B-Series 64Gb/s Fibre Channel SAN switch provides a building block that supports data growth, demanding workloads, and data-center consolidation. The Connectrix DS-7720B is built for maximum flexibility, scalability and ease of use. Organizations can scale from 24 to 56 SFP+ ports in an efficient 1U form factor that delivers industry-leading port density and space utilization. With a 50% latency reduction compared to the previous generation, the DS-7720B enables the maximum performance of NVMe storage. The DS-7720B models have twenty-four 64Gb/s or twenty-four 32Gb/s SFP+ optics pre-installed and is fully licensed meaning software features such as Fabric Vision, Extended Fabric and ISL Trunking are included at no additional charge.

The DS-7720B simplifies deployment, configuration and management of SAN resources with a collection of easy-to-use tools. With EZSwitchSetup, organizations can reduce the number of steps to deploy and configure a switch. In addition, the simplified user interface of Web Tools makes the SAN easier to manage. To further simplify operations and increase visibility, the DS-7720B includes Fabric Vision technology to monitor and analyze the SAN. This technology provides visibility and insight to quickly identify problems and achieve critical service-level agreements (SLAs). Fabric Vision technology is a suite of features that leverage comprehensive data collection capabilities with powerful analytics to quickly understand the health and performance of the environment and identify any potential impacts or trending problems.

The Connectrix B-Series DS-7720B switch utilizes built-in analytics to optimize performance and eliminate disruptions. In addition, this switch collects comprehensive telemetry data across the fabric to enable advanced analytics. To visualize the data, SANnav Management Portal enables organizations to easily understand the health and performance of the SAN. Organizations can leverage SANnav Management Portal to streamline management workflows thereby accelerating the deployment of new applications, switches, servers, and storage. Furthermore, SANnav's modernized graphical user interface (GUI) improves operational efficiencies with visual dashboards for instant visibility and faster troubleshooting. By leveraging automation, SAN admins gain the ability to automate repetitive tasks to save time and mitigate disruptions with limited expertise.

With self-optimizing capabilities, Connectrix B-Series technology utilizes actionable intelligence to maximize performance. Real-time monitoring of health and performance characteristics enables the network to make smarter decisions on traffic prioritization, congestion management and notification to ensure optimal network performance for applications and storage. The DS-7720B also delivers a traffic optimizer that guarantees critical application performance by automatically prioritizing traffic. This advanced capability classifies and separates traffic with similar characteristics.

The combination of SAN analytics and automation technologies unlocks the capabilities to deliver a self-learning, self-optimizing, and self-healing Connectrix B-Series autonomous SAN.

DS-7720B

System Architecture	Technical Specification
Fibre Channel ports	Switch mode (default): Minimum of 24 ports and maximum of 56 ports. Ports are enabled in increments of 8 ports up to 56 ports via Ports on Demand (PoD) licenses; E_Ports, F_Ports, D_Ports, EX_Ports. Access Gateway default port mapping: 56 SFP+ F_Ports, 8 SFP+ N_Ports
Scalability	Full-fabric architecture with a maximum of 239 switches
Certified maximum	4K active nodes; 56 switches, 19 hops in Fabric OS (FOS) fabrics
Performance	64Gb/s SFPs can operate at 64, 32, 16 or 8Gb/s. 32Gb/s SFPs can operate at 32, 16 or 8Gb/s.
ISL Trunking	Frame-based trunking with up to eight SFP+ ports per ISL trunk; up to 512Gb/s per ISL trunk. Exchange-based load balancing across ISLs with Dynamic Path Selection (DPS) included in FOS
Aggregate bandwidth	3.584Tb/s
Maximum fabric latency	Latency for locally switched ports is 460 ns (including FEC)
Maximum frame size	2112-byte payload
Frame buffers	24K per switching ASIC
Classes of service	Class 2, Class 3, Class F (inter-switch frames)
Port types	D_Port (ClearLink® Diagnostic Port), E_Port, EX_Port, F_Port; optional port-type control Access Gateway mode: F_Port and NPIV-enabled N_Port
Data traffic types	Fabric switches supporting unicast
Media types	64Gb/s: hot-pluggable SFP+, LC connector; 64Gb/s SWL 32Gb/s: hot-pluggable SFP+, LC connector; 32Gb/s SWL, LWL 10 km, ELWL 25 km 10Gb/s: hot-pluggable SFP+, LC connector; 10Gb/s SWL, LWL 10 km Fibre Channel distance is subject to fiber-optic cable and port speed
USB	One standard USB port for firmware download, support save, and configuration upload or download
Fabric services <i>Note: Some fabric services do not apply or are unavailable in Access Gateway mode</i>	Fabric Vision; Monitoring and Alerting Policy Suite (MAPS); Flow Vision; Adaptive Networking (QoS); Fabric Performance Impact (FPI) Monitoring; Slow Drain Device Quarantine (SDDQ); Advanced Zoning (default zoning, port/WWN zoning, broadcast zoning, peer zoning, target-driven zoning); Dynamic Fabric Provisioning (DFP); Dynamic Path Selection (DPS); Extended Fabrics; Enhanced BB Credit Recovery; FDMI; Frame Redirection; Frame-based Trunking; FSPF; Integrated Routing; IPoFC; ISL Trunking; Management Server; NPIV; Time Server; Registered State Change Notification (RSCN); Reliable Commit Service (RCS); Simple Name Server (SNS); Virtual Fabrics (Logical Switch, Logical Fabric); Read Diagnostics Parameter (RDP)
SAN Extension	Supports DWDM, CWDM, and FC-SONET Devices; Fibre Channel; In-flight Compression (LZO) and Encryption (AES-GCM-256); BB Credit Recovery; FCIP; IP Extension; Adaptive Rate Limiting (ARL); Data Compression; Fast Write; Read/Write Tape Pipelining; QoS

DS-7720B

Management	Technical Specification
Supported management software	HTTP; SNMP v1/v3 (FE MIB, FC Management MIB); SSH; Auditing; Syslog; NTP v3; Advanced Web Tools; SANnav Management Portal and SANnav Global View; EZSwitchSetup; Command Line Interface (CLI); SMI-S compliant; REST API; Administrative Domains; trial licenses for add-on capabilities
Security	DH-CHAP (between switches and end devices); FCAP switch authentication; HTTPS; IPsec; IP filtering; LDAP with IPv6; OpenLDAP; Port Binding; RADIUS; TACACS+; user-defined Role-Based Access Control (RBAC); Secure Copy (SCP); Secure RPC; Secure Syslog; SFTP; SSH v2; SSL; Switch Binding; Trusted Switch
Management access	10/100/1000Mb/s Ethernet (RJ-45), serial console port (mini-USB)
Diagnostics	ClearLink optics and cable diagnostics, including electrical/optical loopback, link traffic/latency/distance; flow mirroring; built-in flow generator; POST and embedded online/offline diagnostics, including environmental monitoring; FCping and Pathinfo (FC traceroute); frame viewer; non-disruptive daemon restart; optics health monitoring; power monitoring; RAStrace logging; and Rolling Reboot Detection (RRD)

DS-7720B

Mechanical	Technical Specification
Enclosure	Front-to-back airflow; non-port-side exhaust; power from back, 1U Back-to-front airflow; non-port-side intake; power from back, 1U
Size	Width: 440.00 mm (17.32 in.) Height: 43.90 mm (1.73 in.) Depth: 355.60 mm (14.00 in.)
System weight	7.17 kg (15.8 lb) with two power supply FRUs, without transceivers

DS-7720B

Environment	Technical Specification
Operating environment	Temperature: 0°C to 40°C (32°F to 104°F) Humidity: 10% to 85% (non-condensing)
Non-operating environment	Temperature: -25°C to 70°C (-13°F to 158°F) Humidity: 10% to 90% (non-condensing)
Operating altitude	Up to 3000 m (9842 ft)
Storage altitude	Up to 12 km (39,370 ft)
Shock	Operating: Up to 20G, 6 ms half-sine Non-operating: Half-sine, 33G, 11 ms, 3/eg axis
Vibration	Operating: 0.25 Grms sine, 0.40 Grms random, 5 Hz to 500 Hz Non-operating: 5 Hz at 0.5 Grms; 10–500 Hz at 1.0 Grms (sine vibration); 3–500 Hz at 1.12 Grms (random vibration)
Heat dissipation	56 ports at 901 Btu/hr

DS-7720B

Power	Technical Specification
Power supply	Dual, hot-swappable redundant power supplies with integrated system cooling fans
AC input	90V to 264V, 4.5A
AC input line frequency	50 Hz to 60 Hz nominal, 47 Hz to 63 Hz range
AC power consumption	264W with all 56 ports operating at 32Gb/s (56 ports populated with 32Gb/s SWL optics) 58W for an empty chassis with no optics



Dell Technologies Services
Plan, deploy, manage and support
IT transformation with our top-rated
services

Consulting

Dell Technologies Consulting Services provides industry professionals with a wide range of tools and the experience you need to design and execute plans to transform your business.

Deployment

Accelerate technology adoption with ProDeploy

Enterprise Suite. Trust our experts to lead deployments through planning, configuration and complex integrations.

Management

Regain control of operations with flexible IT management options. Our Residency Services help you adopt and optimize new technologies and our Managed Services allow you to outsource portions of your environment to us.

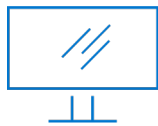
Support

Increase productivity and reduce downtime with ProSupport Enterprise Suite. Expert support backed by proactive and predictive artificial intelligence tools.

Education

Dell Technologies Education Services help you develop the IT skills required to lead and execute transformational strategies. Get certified today.

Learn more at DellTechnologies.com/Services



[Learn More](#) about
Connectrix solutions



[Contact](#) a Dell Technologies Expert