



# CONNECTRIX B-SERIES DS-6600B SWITCHES

32Gb/s Fibre Channel Switches

## Scalability from eight to 128 ports

There are five switch models in the 32Gb/s series. All models can function at 4, 8, 16 or 32 Gb/s speeds depending on the installed optic. All switch models can be managed by Connectrix SANnav.

**DS-6610B** - Designed to support the SAN requirements of small-to-medium-sized environments, the Connectrix DS-6610B is a 24-port switch that offers high performance and economy. The 1U base chassis of the DS-6610B is prepopulated with eight 16Gb/s or 32Gb/s Fibre Channel Small Form Factor Pluggable (SFP+) shortwave optics. The ports on demand (PoD) kits allow expansion in 8-port increments.

**DS-6620B** - Designed to support the SAN requirements of medium-to large sized workgroups as well as that of large enterprises, the Connectrix DS-6620B offers forty-eight SFP+ ports and four QSFP ports in a 1U form factor. Two base models are available which have 24 active 32Gb/s or 16Gb/s ports, populated with 32Gb or 16Gb/s shortwave SFPs. QSFP ports can be used to form dense high performance ISLs with other 32Gb/s switches or directors. QSFPs can also be configured to add up to 16 additional ports. With its speed and port density the DS-6620B can be deployed in any Fibre Channel Storage Area Network (SAN) to enable very dense fabrics in a relatively small package.

**DS-6620B-V2** – Supporting up to 64-ports, this next generation DS-6620B is nearly identical to the current DS-6620B. While both versions offer the same key features and functionalities, there are some differences such as the requirement for FOS 9.0+, the DS-6620B-V2 supports 4Gb/s only on F-port to host/target connections and only has one LED per QSFP port. The number and type of ports is the same as the DS-6620B listed above. Like the DS-6620B, this switch is ideal for medium to large enterprises.

**DS-6630B** – This model has a total of 128 ports. There are 96 standard SFP 32Gb/s capable ports and eight Quad Small Form-factor Pluggable (QSFP) ports which support an additional 32 ports. The DS-6630B will be a good choice for mid-size customers who aren't quite ready to make the added investment into a 4-slot director class product. The DS-6630B will also be a good fit for large enterprise class customers who need more ports at the edge, but don't necessarily need a director class product at the edge of a large SAN.

**DS-6630B-V2** – Supporting up to 128-ports, this next generation DS-6630B is nearly identical to the current DS-6630B. While both versions offer the same key features and functionalities, there are some differences such as the requirement for FOS 9.0+, the DS-6630B-V2 supports 4Gb/s only on F-port to host/target and it has no restrictions for topology or for encryption/compression unlike the original DS-6630B. The number and type of ports is the same as the DS-6630B listed above. Like the DS-6630B, this switch is ideal large enterprise environments.

## DS-6600B Series Switches

System Architecture	Technical Specification
Fibre Channel Ports	<p><b>DS-6610B</b> The DS-6610B base chassis models includes eight active 32Gb/s capable ports that are populated with eight 16Gb/s SFPs or eight 32Gb/s SFPs. The 8-port port-on-demand (PoD) models allow the switch to support additional 16 ports reaching a maximum of 24 ports. The other DS-6610B model which ends in “-EP” comes fully populated with 24 16Gb/s SFPs and includes the Enterprise Package.</p> <p>DS-6610B-L Series DS-6610B-L models are functionally equivalent to the DS-6610B switches above, however; the “-L” models include a unique Limited Lifetime Warranty. The Limited Lifetime Warranty remains in effect until the end of support life for the DS-6610B-L -switch. The DS-6610B-L switches also include an “-EP” fully populated with 24 32Gb/s SFPs and the Enterprise Package</p> <p><b>DS-6620B and DS-6620B-V2</b> The DS-6620B and DS-6620B-V2 feature 48 Fibre Channel SFP+ ports and 4 QSFP ports. There are two base models which have 24 active 32Gb/s or 16Gb/s ports, populated with 32Gb or 16Gb/s shortwave SFPs. The Ports on Demand (PoD) license activates 12 additional ports and includes 12 shortwave SFPs. The QSFP Ports On Demand license activates the four QSFP ports and contains four shortwave QSFPs. The enterprise switch model fully populates the SFP+ ports with forty-eight shortwave SFPs and comes fully licensed with the Enterprise Bundle (Fabric Watch, Trunking, Performance Monitoring, Extended Fabric, Fabric Vision).</p> <p><b>DS-6630B and DS-6630B-V2</b> The DS-6630B and DS-6630B-V2 switch models supports up to 128 ports. There are 96 standard SFP 32Gb/s capable ports and eight Quad Small Form-factor Pluggable (QSFP) ports which support an additional 32 ports.</p>
Performance	32Gb/s SFPs can operate at 32, 16 or 8Gb/s; 16Gb/s SFPs will operate at 16, 8 and 4Gb/s
Frame Buffers	<p><b>DS-6610B</b> - 2K dynamically allocated  <b>DS-6620B and DS-6620B-V2</b> - 15,360 dynamically allocated  <b>DS-6630B and DS-6630B-V2</b> - 15,360 dynamically allocated</p>
Aggregate Bandwidth	<p><b>DS-6610B</b> – 768 Gb/s  <b>DS-6620B and DS-6620B-V2</b> – 2Tb/s  <b>DS-6630B and DS-6630B-V2</b> – 4Tb/s</p>
Class of service	Class 2, Class 3, Class F (Inter-switch Frames)
Port types	<p><b>DS-6610B</b> – F_Port, E_Port, M_Port, D_Port (ClearLink Diagnostics Port) on 24 SFP+ ports; Access Gateway mode: F_Port and NPIV-enabled N_Port  <b>DS-6620B and DS-6620B-V2</b> - D_Port (ClearLink Diagnostic Port), E_Port, EX_Port, F_Port, AE_Port; optional port-type control Brocade Access Gateway mode: F_Port and NPIV-enabled N_Port  <b>DS-6630B and DS-6630B-V2</b> - D_Port (ClearLink Diagnostic Port), E_Port, EX_Port, F_Port, AE_Port, optional port-type control.</p>
Fabric services	<p>Monitoring and Alerting Policy Suite (MAPS), Flow Vision, adaptive Networking (Ingress Rate Limiting, Traffic Isolation, QoS), Fabric Performance Impact (FPI) monitoring, Slow Drain Device Quarantine, (SDDQ), Advanced Zoning ((default zoning, port/WWW zoning, broadcast 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, No Integrated Routing; IPoFC, ISL Trunking; Management Server; NPIV, Time Server; Registered State Change Notification (RSCN); Reliable Commit Service (RCS); Simple Name Server (SNS); Read Diagnostics Parameter (RDP)            Note: Some fabric services do not apply or are unavailable in Access Gateway mode.</p>
Hot swappable components	<p><b>DS-6610B</b> – The DS-6610B has an embedded power supply / fan and it is non-replaceable. The entire switch is a Field Replaceable Unit (FRU). The only FRU’s on the DS-6610B are the SFP’s. The DS-6610B will support in-service firmware upgrades.  <b>DS-6620B and DS-6620B-V2</b> – Dual power supplies with three embedded cooling fan FRUs, SFPs and QSFP optics. The fans are connected to the power supplies and are not themselves replaceable.  <b>DS-6630B and DS-6630B-V2</b> – Dual power supplies, three fan FRUs, SFPs and QSFPs</p>
Installation options	All models can be installed in a standard, customer-supplied, 19-inch Electronic Industries Alliance (EIA) rack
Scalability	Refer to Dell EMC E-Lab Navigator smart phone App downloadable from the Apple or Google Store or E-Lab Navigator found at this link: <a href="https://www.delltechnologies.com/en-us/products/interoperability/elab.htm">https://www.delltechnologies.com/en-us/products/interoperability/elab.htm</a>
Maximum frame size	2,112-byte payload

## DS-6600B Series Switches

Management	Technical Specification
Minimum Fabric Operating System (FOS)	DS-6610B FOS 8.1.0a or higher DS-6620B FOS 8.0.0 or higher DS-6620B-V2 FOS 9.0.0 or higher DS-6630B FOS 8.0.0 or higher DS-6630B-V2 FOS 9.0.0 or higher
Management	Advanced Web Tools. SSH, Auditing, Syslog NTP v3, CLI, SMI-S compliant; REST API, HTTP, SNMP v1/v3 (FE MIB, FC Management MIB)
SANnav Management	SANnav Management Portal and SANnav Global View empower IT administrators to be more efficient and productive by providing comprehensive visibility into the SAN environment. SANnav only supports open systems and requires FOS v7.4 or higher.
Legacy Connectrix B-Series SAN Manager	Connectrix Manager Converged Network Edition (CMCNE)
Management access	10/100/1000 Mb/s Ethernet (RJ-45), In-band over Fibre Channel, Serial port (RJ-45), and one USB port
Firmware upgrades	Non-disruptive download and activation
Security	<p><b>DS-6610B</b> DH-CHAP (between switches and end devices), FCAP switch authentication; HTTPS, IPsec, IP filtering, LDAP with IPv6, Open LDAR, Port Binding, RADIUS, TACACS+, user-defined Role-based Access Control (RBAC), Secure Copy (SCP), Secure RPC, Secure Syslog, SSH v2, SSL, Switch Binding, Trusted Switch</p> <p><b>DS-6620B, DS-6620B-V2, DS-6630B, DS-6630B-V2</b> AES-GCM-256 encryption on ISLs; DH-CHAP (between switches and end devices), FCAP switch authentication; HTTPS, IPsec, IP filtering, LDAP with IPv6, OpenLDAR, Port Binding, RADIUS, TACACS+, user-defined Role-based Access Control (RBAC), Secure Copy (SCP), Secure RPC, Secure Syslog, SSH v2, SSL, Switch Binding, Trusted Switch</p>
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, FC ping and Pathinfo (FC traceroute), frame viewer, non-disruptive daemon restart, optics health monitoring, power monitoring, RAS trace logging, and Rolling Reboot Detection (RRD)
Call home	Call home integration with SANnav and Connectrix Manager Converged Network Edition
Optional license-key features	<p><b>Enterprise Package</b> - includes Fabric Vision, Extended Fabric and ISL Trunking  <b>Mainframe License</b> - includes ISL Trunking, Fabric Vision and FICON Control Unit Port (CUP)  <b>Integrated Routing</b> – allows ports to be configured as EX-Ports supporting FC-FC routing</p> <p>Note: “-EP” DS-6600B models include the Enterprise Package</p>

## DS-6600B Series Switches

Physical Specifications	Technical Specification
Enclosure	<b>DS-6610B</b> - chassis supports rear-to-front (RTF) airflow <b>DS-6620B and DS-6620B-V2</b> - There are two air flow options: front-to-rear (FTR) and rear-to-front (RTF) <b>DS-6630B and DS-6630B-V2</b> - There are two air flow options: front-to-rear (FTR) and rear-to-front (RTF)
Dimension and weight	<b>DS-6610B</b> Height x Width x Depth: 1.69 x 16.88 x 12.07 inches, (42.9 x 428.8 x 306 mm) , 1 RU Weight fully populated: 13 lbs (5.76 kg)  <b>DS-6620B and DS-6620B-V2</b> Height x Width x Depth: 1.73x17.32x14.0 inches (43.9mmx440mmx355.6mm), 1RU Weight with 2 power supplies and no transceivers: 17lbs (7.73kg)  <b>DS-6630B and DS-6630B-V2</b> Height x Width x Depth: 3.41x17.32x24.0 inches (86.7mmx440mmx609.6mm), 2RU Weight with 2 power supplies and no transceivers: 42lbs (19.05kg)

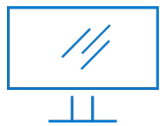
## DS-6600B Series Switches

Power Requirements	Technical Specification
Power supply	<b>DS-6610B</b> - Switch chassis includes one fixed power supply. Note: Although the DS-6610B ships with a single power supply, two power cords are Included. Only one power cord is required. <b>DS-6620B and DS-6620B-V2</b> - Switch chassis includes dual, hot-swappable power supplies with integrated cooling system <b>DS-6630B and DS-6630B-V2</b> - Switch chassis includes dual, hot-swappable power supplies with integrated cooling system
AC Input	<b>DS-6610B</b> - 90 V to 264 V ~2.2A <b>DS-6620B and DS-6620B-V2</b> - 90 V to 264 V ~3.5A <b>DS-6630B and DS-6630B-V2</b> - 90 V to 264 V ~12A
Input line frequency	47-63 Hz
Power consumption	<b>DS-6610B</b> - 77 WATTS with all 24-ports populated <b>DS-6620B and DS-6620B-V2</b> - 206 WATTS with all 64 ports populated <b>DS-6630B and DS-6630B-V2</b> - 942 Watts with all 128-ports

## DS-6600B Series

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 3000m (9,842 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, 3G axis
Vibration	Operating: 0.5g sine, 0.4 grms random, 5 Hz to 500 Hz Non-operating: 2.0g sine, 1.1 grms random, 5 Hz to 500 Hz
Heat dissipation	<b>DS-6610B</b> - 24 ports at 215 BTU/hr <b>DS-6620B and DS-6620B-V2</b> 64 ports at 716 BTU/hr <b>DS-6630B and DS-6630B-V2</b> - 128 ports at 3512 BTU/hr





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