

# EMC Connectrix DS-300B



The EMC® Connectrix® DS-300B provides a cost-effective, flexible foundation for entry-level SANs and can serve as an edge switch for core-to-edge SAN environments. The DS-300B integrates innovative hardware and software features that make it easy to deploy, manage, and integrate into a wide range of IT environments. It enables organizations to start small and grow their storage networks in a non-disruptive manner by providing state-of-the-art performance and Ports-on-Demand scalability. In addition, organizations can initially deploy 4 Gb/s SFPs and upgrade to 8 Gb/s SFPs as application and performance demands increase. To further simplify deployment, the DS-300B features the EZSwitchSetup wizard and other usability and configuration enhancements.

## Specifications

### System Architecture

#### Fibre Channel Standards

FC-PH, FC-PH-2, FC-PH-3, FC-GS-2, FC-FLA, FC-FG, FC-SW3

#### Certified Maximum

Single FOS fabric: 56 domains, 19 hops

Single M-EOS fabric: 31 domains, 3 hops

#### Fibre Channel ports

24 ports in 8-port increments through Ports-on-Demand licenses at 8, 16, and 24 universal (E, F, M, FL, or N) ports

#### Performance

Full line-speed switching at:

- 2.125 Gb/s line speed, full duplex
- 4.25 Gb/s line speed, full duplex
- 8.50 Gb/s line speed, full duplex

Auto-sensing of 2, 4, and 8 Gb/s port speeds

Optionally programmable to fixed port speed

Speed matching between 2, 4, and 8 Gb/s ports

#### ISL Trunking

Frame-based trunking with up to eight 8 Gb/s ports per ISL trunk with optional license; up to 68 Gb/s per ISL trunk (8 ports × 8.5 Gb/s (line rate))

Exchange-based load balancing across ISLs with DPS included in Fabric OS

#### Aggregate Bandwidth

408 Gb/s: 24 ports × 8.5 Gb/s (line rate) × 2 (full duplex)

#### Maximum Fabric latency

700 ns with no contention, cut-through routing at 8 Gb/s

#### Maximum frame size

2,112-byte payload

#### Frame Buffers

700 dynamically allocated, 484 maximum per port

#### Classes of Service

Class 2, Class 3, Class F (Interswitch Frames)

#### Port Types

FL\_Port, F\_Port, M\_Port (Mirror Port), and E\_Port; self-discovery based on switch type (U\_Port); optional port type control

#### Data Traffic Types

Fabric switches supporting unicast, multicast (255 groups), and broadcast

### Media Types

4 Gb/s: Requires Connectrix hot-pluggable, Small Form-factor-Pluggable (SFP), LC connector; 4 Gb/s Short-Wavelength Laser (SWL); 4 Gb/s Long-Wavelength Laser (LWL); 4 Gb/s Extended Long-Wavelength Laser (ELWL); distance depends on fiber-optic cable and port speed

8 Gb/s: Requires Connectrix hot-pluggable SFP+, LC connector; Short-Wavelength Laser (SWL); distance depends on fiber-optic cable and port speed

### USB

1 USB port for firmware download, support save, and configuration upload/download

### Fabric Services

Simple Name Server (SNS); Registered State Change Notification (RSCN); NTP v3; Reliable Commit Service (RCS); Dynamic Path Selection (DPS); Brocade Advanced Zoning (default zoning, port/WWN zoning, broadcast zoning); NPIV; N\_Port Trunking; FDMI; Management Server; FSPF; Fabric Watch; Extended Fabrics; ISL Trunking; Advanced Performance Monitoring; Adaptive Networking (per data flow QoS, Ingress Rate Limiting, Traffic Isolation, TopTalkers; licensing varies); IPoFC, Frame Redirection; Port Fencing; BB credit recovery

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## Connectivity Management

### Interface

Telnet, HTTP, SNMP v1/v3 (FE MIB, FC Management MIB); Auditing, Syslog, Change Management tracking; EZSwitchSetup wizard; Web Tools; EMC Connectrix Manager Standard/Enterprise 9.x (optional); Fabric Manager (optional: FOS environments only); SMI-S compliant, SMI-S scripting toolkit, Administrative Domains; trial licenses for select add-on capabilities

### Management Access

Call home integration

10/100 Ethernet (RJ-45), in-band over Fibre Channel; serial port (RJ-45); USB; call-home integration enabled through Connectrix Manager and Fabric Manager

### Security

SSL, SSH v2, HTTPS, LDAP, RADIUS, Role-Based Access Control (RBAC), DHCHAP (between switches and end devices), Port Binding, Switch Binding, Secure RPC, Secure Copy (SCP), Trusted Switch, IPsec, IP Filtering

### Compatibility

All Connectrix B Series switches and directors

### Diagnostics

POST and embedded online/offline diagnostics, including RAStrace logging, environmental monitoring, non-disruptive daemon restart, FCping and Pathinfo (FC traceroute), port mirroring (SPAN port)

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## Physical Specifications

### Enclosure

Non-port to port-side airflow; 1 U, 19-inch EIA-compliant, power from port side

### Size

Width: 42.88 cm (16.88 in)

Height: 4.29 cm (24.11 in)

Depth: 30.66 cm (12.07 in)

System Weight: 4.2 kg (9.3 lb), without SFP/SFP+ media

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## Environmental Specifications

### Temperature

Operating: 0° C to 40° C (32° F to 104° F)

Non-operating: -25° C to 70° C (-13° F to 158° F)

### Relative Humidity

Operating: 10% to 85% non-condensing

Non-operating and storage (non-condensing): 10% to 95% non-condensing

### Altitude (feet/meters)

Operating: Up to 3,000 meters (9,842 feet)

Storage: Up to 12 kilometers (39,370 feet)

### Shock

Operating: 20 G, 6 ms, half-sine

Non-operating: Half-sine, 33 G 11 ms, 3/eg Axis

### Vibration

Operating: 0.5 G sine, 0.4 grms random, 5 to 500 Hz

Non-operating: 2.0 G sine, 1.1 grms random, 5 to 500 Hz

### Heat Dissipation

Maximum 24 ports: 195 BTU/hr

**CO<sup>2</sup> Emissions**

210 kg per year (with 16 ports at 0.42 kg/kWh)

1.09 kg per Gb/s per year

**Airflow**

Maximum 23 CFM (cu. ft./min); nominal 18 CFM

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**Power Requirements****Input Voltage**

85 to 264 VAC nominal

**Frequency**

47 to 63 Hz

**Power Consumption**

Nominal 48 watts; maximum 57 watts with 24 ports at 8 Gb/s

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**Regulatory Requirements**

	<b>Safety</b>	<b>EMI</b>
United States	UL 60950	FCC Part 15 Class A
Canada	CSA No. 60950	ICES-003 Class A
Australia/New Zealand	–	EN550022 Level A
Japan	IEC 60950	VCCI Class A
International	IEC 60950	CSPR22 Class A
European Community	EN60950	EN55022 Level A
	TUV, NEMKO	EN55024
Taiwan	CNS	13438 Class A



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