

# EMC CONNECTRIX DS-300B



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. Organizations can deploy high-performance 8 Gb/s SFPs to meet today's increased application and performance demands. 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 speeds

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 x 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 x 8.5 Gb/s (line rate) x 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 Long-Wavelength Laser (LWL); 4 Gb/s Extended Long-Wavelength Laser (ELWL); 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, Top Talkers; licensing varies); IPoFC, Frame Redirection, Port Fencing; BB credit recovery

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## **CONNECTIVITY MANAGEMENT**

### **INTERFACE**

Telnet, HTTP, SNMPv1/v3 (FE MIB, FC Management MIB); Auditing, Syslog, Change Management tracking; EZSwitchSetup wizard; Web Tools; EMC Connectrix Manager Converged Network Edition 11.x; SMI-S compliant, SMI-S scripting toolkit, trail 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

## 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 RASrtrace 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: 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 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 .42 kg/kWh)

1.09 kg per Gb/s per year

## AIRFLOW

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

## POWER REQUIREMENTS

### INPUT VOLTAGE

85 to 262 VAC nominal

### FREQUENCY

47 to 63 Hz

### POWER CONSUMPTION

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

## REGULATORY REQUIREMENTS

|                         | SAFETY             | EMI                        |
|-------------------------|--------------------|----------------------------|
| UNITED STATES           | UL 60950           | FCC Part 15 Class A        |
| CANADA                  | CSA No. 60950      | ICES-003 Class A           |
| AUSTRALIA / NEW ZEALAND | N/A                | EN550022 Level A           |
| JAPAN                   | IEC 60950          | VCCU Class A               |
| INTERNATIONAL           | IEC 60950          | CSPR22 Class A             |
| EUROPEAN COMMUNITY      | EN60950 TUV, NEMKO | EN55022 Level A<br>EN55024 |
| TAIWAN                  | CNS                | 13438 Class A              |

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