

# BROCADE M6140 DIRECTOR



## STORAGE AREA NETWORK

## An Enterprise-Class SAN Director for Mission-Critical Environments

### HIGHLIGHTS

- Ensures business continuance through 99.999 percent availability
- Delivers consistent high performance with transfer rates up to 10 Gbit/sec
- Provides a cost effective director solution for small- to mid-sized enterprises
- Enables flexible deployment through support for both Fibre Channel and FICON®
- Maximizes system administrator resources with centralized management

The Brocade® M6140 Director is the best choice for supporting mission-critical business requirements—24×7. A SAN built with a 4- and 10-Gbit/sec Brocade director at the core keeps pace with exponential storage growth and can evolve to meet unexpected changes in your business.

The 140-port Brocade M6140 provides the highest availability. It offers a high-performing, flexible building block for large SAN deployments, with hundreds or even thousands of ports. It is the only single-stage, 140-port director designed today with support from 1 Gbit/sec to 10 Gbit/sec to meet any application performance needs. The Brocade M6140 also provides exceptional flexibility by meeting the connectivity demands of both open systems and mainframe FICON environments.

Today's enterprise requires scalability and flexibility—and the Brocade M6140 delivers. With 4-port granularity, companies can add just the capacity they need as their requirements grow.

By coupling Brocade directors with our extensive switch, routing, extension and software solutions, customers can implement highly available networks to support tiered storage models utilized in data centers around the globe.



# BROCADE

## MAXIMIZING SAN INVESTMENTS

Brocade and its partners offer complete SAN solutions to meet a wide range of technology and business requirements. These solutions include education and training, support, service, and professional services to help optimize SAN investments. For more information, contact an authorized Brocade sales partner or visit [www.brocade.com](http://www.brocade.com).

## BROCADE M6140 DIRECTOR SPECIFICATIONS

### Availability

99.999%

Hot-plug, redundant power supplies, fans, processors

Hot-plug optics, port modules

Online diagnostics

HotCAT™ technology for online, non-disruptive firmware load and activation

### Compatibility

Fibre Channel Protocols FC-PH v. 4.3, FC-PH-2, FC-PH-3, FC-GS-2, FC-FLA, FC-FG, FC-SW-2, FC-SW-3

Fibre Channel Element MIB FE-MIB

TCP/IP MIB-II Groups System, Interface, Address Translation, IP, ICMP, TCP, UDP, SNMP

Classes of Service Class 2, Class 3, Class F

### Performance

Port Speed 4 Gbit/sec, full duplex  
10 Gbit/sec, full duplex

Buffer Credits 125 per port/ 4 Gbit/sec  
400 per port/ 10 Gbit/sec

Switch Latency Less than 2 microseconds average

### Scalability

Ports per Chassis Brocade M6140: 140 Ports

Media Type Hot-plug, industry standard  
LC Small Form Factor

### Supported Optical Media

**Types/Distance**  
Shortwave 300m (984 ft.) / 2 Gbit/sec  
150m (492 ft.) / 4 Gbit/sec  
82m / 10 Gbit/sec (OM2 cable)  
300m / 10 Gbit/sec (OM3 cable)

Longwave 10 km (6.2 mi.) / 2 Gbit/sec  
20 km (12.4 mi.) / 2 Gbit/sec  
35 km (21.7 mi.) / 2 Gbit/sec  
4 km (2.5 mi.) / 4 Gbit/sec  
10 km (6.2 mi.) / 4 Gbit/sec  
10 km / 10 Gbit/sec  
40 km / 10 Gbit/sec

With Repeaters 120 km (1 Gbit/sec)  
60 km (2 Gbit/sec)+4 Gbit/sec  
100 km /10 Gbit/sec

Cabling 62.5/125 micron multimode,  
150m (1,148 ft.)@4 Gbit/sec  
50/125 micron multimode,  
260m (1,640 ft.)@4 Gbit/sec  
9/125 micron single mode,  
10 km (6.2 mi.)  
40m (24.8 mi.)@4 Gbit/sec

## Management Options

SANavigator® Software

Brocade Enterprise Fabric Connectivity Manager (EFCM)

SA OS/390 through FICON Management Server (CUP)

SNMP

Open Systems Management Server

## Fabric Services

Simple Name Server

Management Server (optional)

Broadcast

Name Server Zoning

## Access

### In-band

Ethernet (10/100 Mb/s)

## Diagnostics

Power-on self test

Online port, CTP, SBAR

Internal and external loopback

Online system health

## Serviceability

Non-disruptive firmware upgrades

HotCAT™ (hot code activation technology)

Call-home, e-mail (with Brocade software)

Smart thermal protection

Unit, Port, FRU beaconing

## Installation Options

Rack mountable, 19 inch EIA rack

## Environmental

Non-operating temp 34° F to 140° F

Non-operating humidity 5%-80%

Non-operating altitude 12,192 m (40,000 ft.)

Operating temp 40° F to 104° F

Operating humidity 8%-80%

Operating altitude 3,048 m (10,000 ft.)

### Physical Dimensions

Height 52.9 cm (20.8 in. 12U)

Width 44.5 cm (17.50 in.)

Depth 61.3 cm (24.1 in.)

Weight 75.9 kg (167 lbs.)

## Electrical

Operating voltage 200-240 VAC

AMPs (max.) 4.2 AMPs

Heat output (max.) 2,873 BTU/hour

Watts (max.) 841 Watts

Regulatory UL, CSA, CE Mark, VCCI Class 1, FCC Part 15

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