

### Features

- Provides sixteen ports per hub, with configurable port connectors for mixed-media and mixed-speed flexibility
- Supports all fiber port types, each port 10Mb or 100Mb, for up to 16 economical fiber ports.
- Combines 10/100 speed and media flexibility with stackability for rack-mount expansion
- Complies with 100BASE-T, 10BASE-T and fiber Ethernet standards; full 100Mb Class II+ repeater functionality
- Has a compact package for installation in offices and labs, with metal case and auto-ranging internal power supply
- Options include -48VDC, 24VDC, and 125VDC power supply, dual source power input, 19" RETMA, ETSI, and 23" Telco rack mounting



Magnum™ 8000X Mixed-Media Fiber Dual-Speed Stackable Hubs provide the flexibility of configurable fiber and RJ-45 ports, of 100Mb or 10Mb Ethernet speed per-port, all in one hub with the expandability of stacking. Any mix of speeds and RJ-45 or fiber port types, up to 16 ports per hub, are accommodated in a 1U rack-mount package. Port modules may be factory configured or may be changed or added in the field.

Medium-sized "fiber-to-the-desktop" and industrial control networks that need to mix new ports at 100Mb performance with economical 10Mb ports for other nodes can benefit from the dual-speed 10/100Mb Magnum 8000X Mixed-Media fiber hubs.

Dual-speed network technology enables the Magnum 8000X hubs to accept either 100Mb or 10 Mb signals, over fiber or copper cables, configured on a per-port basis. Each fiber port can be installed as either 10Mb or 100Mb speed, with the fiber connector selected for ST, SC, FC, MTRJ, multi-mode or single-mode, FX or SX standard, or other popular fiber port connector types. Each RJ-45 port is independently auto-sensing for 10/100Mb speed, and adapts to match the speed of the connected device.

The Magnum 8000X hubs support two shared traffic domains, one at 100Mb and one at 10Mb, with an internal bridge or switch interconnecting the two domains. Each port module is connected into the appropriate 100Mb or 10Mb domain, depending on its speed and type. As Magnum 8000X-A (or DS8016-A) stacked units are added, the two traffic domains are expanded, up to the three-units-high stacking capability of Magnum 8000s. Any combination of 100Mb or 10Mb ports, fiber or copper, may be in use.

The 8000X Mixed-Media Fiber Dual-Speed Hubs and other Magnum products are made in the USA and are backed by a three-year warranty.

### PERFORMANCE:

Data Rate: 100 or 10Mbps, per port, individually selected. (The hub supports two traffic domains, one at 100Mb and one at 10 Mb, operating concurrently).

PDV(100M Path Delay Value): 80BT exceeds Class II specification  
Partitioning: Enforced after 63 consecutive collisions  
Auto-reconnect: Occurs after one packet of error-free reception

### INTERNAL SWITCH or BRIDGE:

(One per stack to inter-connect the two traffic domains)  
Processing type: Store and Forward  
Address Table: 8K, self-learning, Packet buffers: 2MB, dynamic  
Latency (w/o packet time): 100 to 10Mb or 10 to 100Mb: 5µs

### NETWORK STANDARDS:

IEEE 802.3u: 100BASE-TX, -FX, IEEE 802.3: 10BASE-T  
Auto-negotiation on TP, IEEE 802.3u  
All 10Mb ports obey the rules for configuring 10Mb Ethernet  
All 100Mb ports use Fast Ethernet rules

### NETWORK CABLE CONNECTORS:

Modular on a per-port basis. Fiber ports at 100Mb and 10Mb.  
Port modules for all fiber connector types, see "Ordering Information" below.  
RJ-45s are shielded female ports.

### OPERATING ENVIRONMENT:

Ambient Temperature: 32° to 120°F (0° to 50°C)  
Storage: -40° to 160°F (-40° to 70°C)  
Ambient Relative Humidity: 5% - 95% (non-condensing)  
Conformal coating (humidity protection) option: Request quote

### STACKING CABLE:

A stacking cable with 25-pin "DB-25" male connectors, shielded, 8-in (20 cm) long, included with each 8000X-A. Stacks with DS8016 Dual-Speed Hubs. Supports stacking up to 3 units high.

### SWITCH PORT MODULES For Bonus Port Option:

SPM-FDSC: 100Mb FDX Fiber SC multi-mode  
SPM-FDST: 100Mb FDX Fiber ST multi-mode  
SPM-FDSSC: 100Mb FDX Fiber SC single-mode  
(available by RFQ only)

*Note: 100Mb fiber segments attached to SPMs may be full fiber distance. Conversely, 100Mb fiber segments attached to FPMs are distance limited by collision domain considerations.*

## Ordering Information

**Magnum 8000X** Mixed-Media Fiber Hub chassis with 10/100 Dual-Speed operation per port. Provides 16 front-mounted Port Module (PM) slots in a stand-alone or rack-mount package with an internal universal power supply. Any mix of 8000X PMs (see list below) may be factory or field configured in the front slots. Also provides one rear-mounted bonus port slot for an SPM backbone connection (See list of SPMs above). Includes an internal switch that bridges the two traffic domains, filtering and selectively forwarding packets between the 100Mb and the 10Mb domains. May be stacked with up to two DS8016-A, -E or 8000X-A add-on units. Units with special -48V power supply options are available.

**Magnum 8000X-A** Stack add-on unit, same as 8000X but without bridge inside. Includes stacking cable.

Dual-Source DC input options are available on Magnum 8000Xs, see "Special Items" price list.

### Bonus Port Modules:

FPM-MSC	Fiber module with 100Mb multi-mode FX SC connector
FPM-MST	Fiber module with 100Mb multi-mode FX ST connector
FPM-MTRJ	Fiber module with 100Mb multi-mode FX MTRJ small form factor connector
FPM-SSC	Fiber module with 100Mb 20Km single-mode FX SC connector
FPM-SSCL	Fiber module with 100Mb 40Km "Long Reach" single-mode FX SC connector
FPM10-MST	Fiber module with 10Mb multi-mode FL ST connector - half duplex (default) or full-duplex
PM-RJ45	Port Module with a 10/100 Mb auto-negotiating RJ-45 connector
PM-RJ45U	Port Module with a 10/100 Mb auto-negotiating RJ-45 and up-link switch
FPM-BLNK	Blank module, used in unit when no port option is selected or configured.

### AC POWER SUPPLY (INTERNAL):

AC Power Connector: IEC-type, male recessed, rear of chassis  
Power Input Voltage: 90 to 260 VAC (auto ranging)  
Power Input Frequency: 47 to 63 Hz  
Power Consumption: 30 watts typical, 65 watts max

### DC POWER SUPPLY OPTIONS:

-48VDC: Input -36 to -70VDC  
24VDC: Input 20 to 40VDC  
125VDC: Input 90 to 150VDC  
Std. Terminal Block: "-", GND, "+",  
Power Consumption: Same as AC

### DC DUAL-SOURCE (OPTIONAL):

The Magnum 8000X may be ordered with optional Dual DC power input, for continuity of operation when either one of the DC input sources is interrupted. Available for -48VDC, 24VDC, and 125VDC input types.

### MECHANICAL:

Enclosure: Rugged sheet metal. Suitable for stand-alone or 1U rack-mounting.  
Rack-mounting brackets: 19" included; ETSI and 23" Telco optional.  
Dimensions: 1.75 in H x 17 in W x 10.5 in D  
(4.4 cm x 43.2 cm x 26.7 cm)  
Weight: 4.0 lb. (1.8 kg)  
Cooling Method: Fan cooled, internal @ 9cfm

### LED INDICATORS:

**POWER:** Steady on when power applied  
**BR:** Steady on, unit has bridge inside  
**ACT 10:** packet activity, 10Mb  
**ACT 100:** packet activity, 100Mb  
**COL 10:** Collision indicator, 10Mb  
**COL 100:** Collision indicator, 100Mb  
**LED indicators per port,** in each PM, are "L" for LINK, "A" for Activity. RJ-45 PMs have an "S" for speed, where flashing indicates auto-negotiation, steady ON indicates 100Mbps and OFF indicates 10Mbps operation.

### WARRANTY:

Three years

Made in USA

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