

Features

- Provides five 10/100 Mb ports, plus a 10/100 switched port on DS60s for connection into another Ethernet domain
- Switched 100 Mb Fiber port on DS60F may be multi-mode SC, 20Km single-mode SC or 40Km single-mode long-reach
- Plug-and-play operation, for easy installation when adding 100 Mb ports to either a 10 Mb or a 100Mb Ethernet network
- High capacity buffering on the switched port to handle the demands of large active networks
- Durable metal enclosure, table-top or wall mounting, internal auto-ranging AC, -48VDC, 24VDC, or 125VDC power supply.



Magnum™ DS60s and DS50 Ethernet Hubs Plus provide five shared dual-speed 10/100 hub ports in a convenient control room-package with internal power supply, plus a switched 10/100 Mb copper or 100 Mb fiber port for interconnection into another network domain on the DS60 models. All models are available with standard AC and optional -48VDC power input for high availability Carrier-Class applications, or 24VDC and 125VDC for Industrial control room applications.

The five dual-speed repeater ports provide two traffic domains where packets are broadcast to all users without any switching delay. Where applications require the movement of time-sensitive packets, the repeater-broadcast function is preferred over switching. All 10 Mb users operate in one traffic domain, and all 100 Mb users in another. A switch between the 10 and 100 Mb domains interconnects all users.

The plug-and-play operation of the Magnum DS60s allows them to be easily incorporated in the network when needed. An uplink switch on Port 1 provides for cascading to another hub or switch without a cross-over cable. The selection of the mode on the Magnum DS60 switched port is done manually so there is no ambiguity when it is used with devices having the 10/100 auto-negotiation feature, or fixed 100Mb FDX mode.

In operation, the DS60 switched port automatically learns the addresses of the attached nodes for full switching efficiency without special setup. By using a switched port for the interconnection, there are no PDV traffic domain distance limits to worry about. Magnum DS60s may be added into Ethernet LANs without upsetting existing configurations.

The Magnum DS60s effectively incorporate a small 100 Mb industrial hub with a 10/100 switch — all in one compact package. Typical applications include adding 10/100 nodes in an industrial control room, or extending a “maxed out” 100Mb network segment to add ports beyond the normal 100Mb hub collision domain limits. The Magnum Ethernet Hub Plus units can also be used in factory automation sites which may require 24VDC power and DIN-rail mounting, or in -48VDC power Telco applications such as network management traffic.

The Magnum DS60s and DS50 Ethernet Hubs Plus have high MTBF ratings and meet the IEEE 802.3u and 802.3 specifications for interoperability with other standards-compliant Fast Ethernet and 10Mb Ethernet products. The Magnum DS50, DS60F and DS60C Ethernet Hubs Plus as well as the other Magnum Ethernet connectivity products are designed and manufactured in the USA and backed by a three-year warranty.

PERFORMANCE:

Ports 1 - 5: (Repeater Ports)

Data Rate: 100 or 10 Mb

Partitioning: Enforced after 32 consecutive collisions

Auto-reconnect: Occurs after one packet of error-free transmission

False Carrier Isolation: Enforced after two false carrier events occur on the segment

Reconnection from Isolation: Occurs after 33,000BT (Bit Times) without carrier activity

PDV (Path Delay Value): 80BT

Port 6:

DS60F model only: Switched 100Mbps Fiber, FDX or HDX

DS60C model only: Switched, 100Mb FDX or 10/100 auto-negotiating

Filtering and Forwarding Rate at 100Mb speed: 148,800 pps max.

PACKET PROCESSING (10/100 hub, and switched port 6 on DS60s:

Processing type: Store and Forward

Address buffers: 8K for port 6, 2K between hub domains

Packet buffers: 1MB buffers for port 6, 256K between hub domains

NETWORK STANDARDS:

Ethernet IEEE 802.3u: 100BASE-TX, 100BASE-FX; IEEE 802.3: 10BASE-T

10Mb ports obey the rules for configuring 10Mb Ethernet, 100Mb ports obey Fast Ethernet rules

POWER SUPPLY (INTERNAL):

AC Power connector: IEC-type, male recessed, rear of chassis

Power input voltage: 100 to 240 VAC (auto ranging)

Power input frequency: 47 to 63 Hz

Power consumption: 7 watts typical, 10 watts max.

Power Supply Options: -48VDC, 24VDC, and 125VDC internal are available.



Rear view of the DS50 and DS60s
125VDC model not shown above

Ordering Information

Magnum DS60C:

Magnum DS60C Ethernet Hub Plus with five 10/100BASE-TX RJ-45 ports and one 10/100 Mb switched RJ-45 port. Provides shared 10/100 connections and a switched 10/100 6th port. The Magnum DS60C includes shielded RJ-45 connectors, an uplink switch on port 1, front-mounted LEDs, and an internal auto-ranging AC power supply.

Magnum DS60F-MSC: Same as DS60C except Port 6 is 100Mb FDX multi-mode Fiber SC.

Magnum DS60F-SSC: Same as DS60C except Port 6 is 100Mb FDX single-mode Fiber SC, 20km.

Magnum DS60F-SSCL: Same as DS60C except Port 6 is 100Mb FDX single-mode Fiber SC long reach, 40km.

Magnum DS50:

Magnum DS50 Ethernet Hub Plus with five 100BASE-TX RJ-45 ports. Provides shared connections for up to five Ethernet devices over twisted pair cables, with dual-speed Fast Ethernet and/or 10Mbps standard Ethernet for all attached devices. The Magnum DS50 includes shielded RJ-45 connectors, an uplink switch on port 1, front-mounted LEDs, and an internal auto-ranging power supply.

RFQ for optional power supply types: -48VDC or 24VDC and for DIN-rail mounting kit.

RFQ for conversion of DS60F 100Mb SC fiber connector to 100Mb ST fiber connector.

MECHANICAL SWITCHES:

Port 1: UPLINK (MDI/MDI-X)

Thumb-operated slide switch, converts RJ-45 port from a regular (= position) port to a crossover (X position) uplink port for on/off connection to an upstream or cascaded hub or switch.

DS60C - Port 6 (the switched copper port):

Thumb-operated slide switch, selects auto-negotiation or Full fixed (FDX).

DS60F - Port 6 (the switched fiber port): 100Mb Full or Half-duplex.

OPERATING ENVIRONMENT:

Ambient temperature: 32° to 122°F (0° to 55°C)

Storage: -5° to 160°F (-20° to 70°C)

Ambient relative humidity: 5% - 95% (non-condensing)

NETWORK CABLE CONNECTORS:

100BASE-TX: RJ-45 shielded female, Category 5

10BASE-T: RJ-45 shielded female, Category 3 or better

100BASE-FX: 100Mb SC-type, multi-mode or single-mode
(ST-type available by special order)

MECHANICAL:

Enclosure: Rugged high-strength sheet metal. Suitable for wiring closet shelf, desktop, or wall mounting. Wall-mount brackets included. DIN-rail mounting kit available.

Dimensions: 1.3 in H x 6.1 in W x 9.1 in D
(3.3 cm x 15.5 cm x 23.0 cm)

Weight: 1.75 lbs. (0.8 kg)

Cooling Method: Fan cooled, internal @ 7 cfm

LED INDICATORS ON CHASSIS:

PWR: Steady on when power applied

COL: Flashes for collision detection (1 LED ea. for 10Mb, 100Mb)

LED INDICATORS PER PORT:

LK: Steady on when twisted-pair link is operational

RX: Activity, flashing when port is receiving data.

100: Steady on when port is at 100Mb

AGENCY APPROVALS:

UL Listed (UL1950), cUL, CE

Emissions meet FCC Part 15, Class B

WARRANTY:

Three years

Made in USA

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