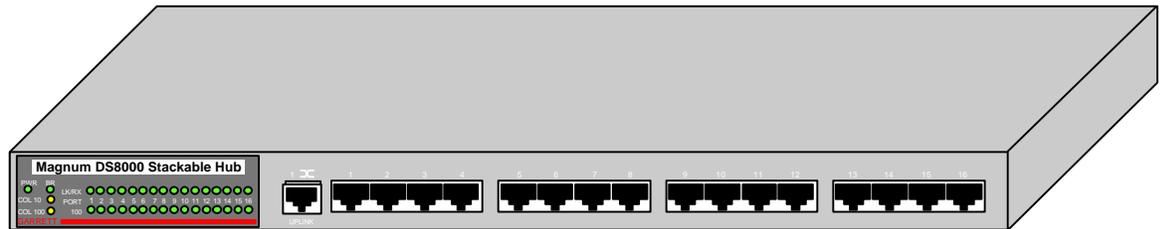
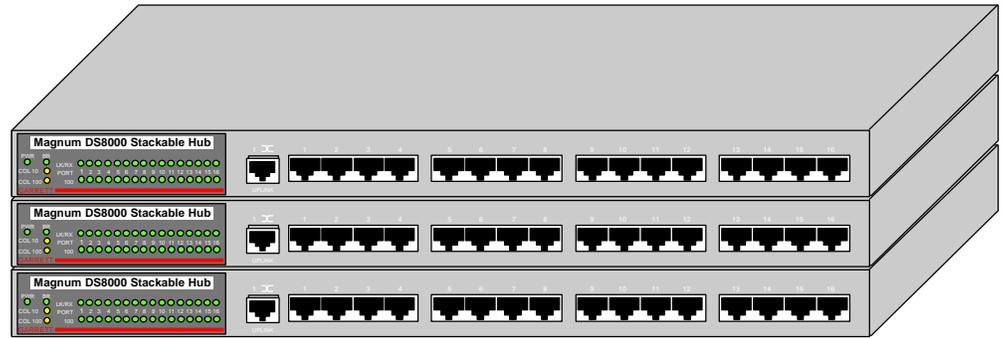


# Magnum DS8000 Domain-Switched Dual-Speed Hubs

100Mb/s  
and  
10Mb/s



## FEATURES

- Provides sixteen RJ-45 ports per hub, each port speed-sensing for 100 or 10Mb
- Combines both 100Mb and 10Mb port speeds with stackability for expansion, for flexibility in rack installations
- Supports stacks of up to 3 units for a maximum of 48 Ethernet ports, each 10/100 dual speed
- Complies with 100BASE-T and 10BASE-T Ethernet standards; full 100Mb Class II+ repeater functionality
- Comes with a durable metal enclosure, stacking cable, rack-mount brackets, rubber feet for tabletop mounting, internal auto-ranging power supply (48VDC optional) and cooling fan.

The Magnum™ DS8000 Stackable Hubs provide the flexibility of 100Mb and 10Mb Ethernet ports in one hub along with the expandability of stacking. Medium-sized networks that need to mix ports at 100Mb performance for high bandwidth applications with economical 10Mb ports for other nodes can benefit from the domain-switched dual-speed 10/100 Magnum DS8000s.

New network chip technology enables the Magnum DS8000 Dual Speed hubs to identify and accept either 100Mb or 10Mb signals on a per-port basis. Each RJ-45 port is independently auto-sensing for speed, adapting at the time of LINK-enable to match the speed of the connected device. Each port can change between 10Mb and 100Mb at any time without affecting other ports. This capability provides the ultimate in flexibility for small-to medium-sized mixed-speed networks that are gradually transitioning from 10Mb Ethernet to 100Mb Fast Ethernet speed.

The Magnum DS8000 Dual-Speed units support two shared traffic domains, one at 100Mb and one at 10Mb. Each port is connected into the appropriate 100Mb or 10Mb domain, depending on its speed as sensed. As DS8000 stacked units are added, the two domains automatically expand, up to the three-unit-high stacking capability of Magnum DS8000s. Any combination of 100Mb or 10Mb ports may be in use.

One model of the Magnum DS8000 Domain-Switched hubs includes an internal switch or bridge to interconnect the two shared traffic domains, enabling all users on a DS8000 stack, whether 100Mb or 10Mb, to talk to each other. This self-learning switch filters and selectively forwards packets between the two traffic domains, unifying them. Each domain's performance is maintained at its peak potential, unaffected by local traffic on the other domain. Only one DS8000 with an internal switch unit is necessary to support the entire stack.

The Magnum DS8000 Stackable Hubs and other Magnum products are made in the USA and are backed by a three-year warranty.

## SPECIFICATIONS

**GARRETT**

**PERFORMANCE:**

Data Rate: 100 or 10 M bits / second, per port, auto-sensing for speed.

The hub supports two traffic domains, one at 100Mb and one at 10Mb, 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, optional, to inter-connect the two traffic domains)

Processing type: Store and Forward

Address Table: 8K, self-learning

Packet buffers: 2MB, dynamically allocated for both sides

Latency (not including packet time):

100 to 100Mb: 5 microseconds  
 100 to 10Mb: 5 microseconds

**NETWORK STANDARDS:**

100Mb: IEEE 802.3u, 100BASE-TX

10Mb: IEEE 802.3, 10BASE-T

Auto Speed-Sensing: IEEE 802.3u

**OPERATING ENVIRONMENT:**

Ambient Temperature:

32° to 120°F (0° to 50°C)

Storage: -5° to 140°F (-20° to 60°C)

Ambient Relative Humidity:

10% - 95% (non-condensing)

**STACKING CABLE:**

A stacking cable with 25-pin "DB-25" male connectors, shielded, 8 in (20cm) long, included with each DS8016-A (add-on) and DS8016-E (100Mb) unit  
 Supports stacking up to 3 units high.

**NETWORK CABLE CONNECTORS:**

Sixteen RJ-45 shielded female  
 at 100Mb: Category 5 UTP/STP  
 at 10Mb: Cat. 3,4, 5 UTP

Note: Use Media Converters such as the TF15 (10Mb) or the 300ES-FDX (100Mb full-duplex) to connect to fiber media.

MII : Std. 40-pin connector in rear

**UP-LINK:**

Use first RJ-45 port, which has two connectors (only one can be used at a time). Plug into # 1 for use as a regular user segment port, or into # 1X for use as a crossover (X position) up-link port for connection to a central hub or another cascaded hub.

**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: 25 watts typical

**48VDC PWR SUPPLY (OPTIONAL):**

Input: 36 - 72 VDC (auto-ranging)

Terminal block, in rear: "-", GND, "+",

Power Consumption: 25 watts typical

**MECHANICAL:**

Enclosure: Rugged high-strength sheet metal. Suitable for stand-alone or rack-mounting. Metal brackets for 1U rack-mounting included.

Dimensions:

1.75 in H x 17 in W x 9 in D  
 (4.4 cm x 43.2 cm x 22.9 cm)

Weight: 4.0 lb. (1.8 kg)

Cooling Method: Fan cooled, internal @ 9cfm

**LED INDICATORS ON CHASSIS:**

Front Mounted

PWR: Steady on when power applied

BR: Steady on, unit has bridge inside

COL 10 : Collision indicator, for 10Mb domain

COL 100: Collision indicator, for 100Mb domain

**LED INDICATORS PER RJ-45 PORT:**

100: Speed, steady on when the port senses operation at 100Mb speed, off for operation at 10Mb, blinking for no operation.

LK/RX: Illuminated when twisted pair LINK is operational, flashes (very rapidly) to indicate there is Receive Activity on the port.

**AGENCY APPROVALS:**

UL Listed (UL1950), cUL, CE

Emissions meet FCC Part 15, Class A

**WARRANTY:**

Three years

Made in USA

Garrett Communications reserves the right to change specifications performance characteristics and/or model offerings without notice. Magnum is a trademark and Personal Hub is a registered trademark of Garrett Communications, Inc. Ethernet is a trademark of Xerox Corporation. UL is a registered trademark of Underwriters Laboratories.

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Printed in United States of America

Doc No. DS8000-R2-09/98

**GARRETT COMMUNICATIONS, INC.**  
**48531 WARM SPRINGS BLVD.**  
**FREMONT, CALIFORNIA 94539**  
**PH: 510.438.9071 FAX 510.438.9072**  
 email: [mktg@garrettcom.com](mailto:mktg@garrettcom.com)  
 WWW: <http://www.garrettcom.com>

**ORDERING INFORMATION:**

Model	Description
Magnum DS8016-A:	Dual-Speed 10/100 Stackable Hub with sixteen RJ-45 ports, each auto-sensing for 100Mb or 10Mb operation. Stackable up to 3 units, with all ports operating as two separate traffic domains, one at 100 and one at 10Mb/s. at 100Mb/s and one domain at 10Mb/s. Includes stacking cable, internal auto-ranging power supply, cooling fan, and metal brackets for rack-mounting.
Magnum DS8016R- 3-48VDC : Dual-5rc48v	Same as Magnum DS8016-A but includes an internal switch that bridges the two traffic domains, filtering and selectively forwarding packets between the 100Mb and the 10Mb domains. Includes rear ethernet connections and dual powered 48VDC inputs. The internal switch has 2MB dynamic buffers and store-and-forward packet buffers and 8K node addresses.
Magnum DS8016-E:	Same as DS8016-A, but all ports fixed at 100Mb-only operation.