

## Cable Modem

Ultra Fast DOCSIS 3.1  
plus 32x8 DOCSIS 3.0

The Motorola Model MB8600 cable modem supports DOCSIS 3.1, the new cable modem standard. DOCSIS 3.1 is the only cable modem standard capable of delivering speeds of 1 Gbps and higher.\* Model MB8600 also has 32x8 support for the older DOCSIS 3.0 standard, which supports the fastest available speeds using the older standard.

Modem speeds of 1 Gbps and higher require Ethernet port bonding to deliver those very fast speeds. The MB8600 has four GigE LAN ports with support for bonding to allow for delivered speeds of up to 4 Gbps.

DOCSIS 3.1 also introduces Active Queue Management (AQM), which significantly reduces Internet latency. AQM results in faster page loads for all Web traffic and greatly enhances interactive applications like on-line gaming and video conferencing.

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### Important Features

Super Fast DOCSIS 3.1 with fallback to 32x8 DOCSIS 3.0

Full-band Capture Digital Tuning enhances speed and saves energy

Works with any router, Windows or Mac computer, HDTV, or game station that has an Ethernet port

Great for Netflix®, YouTube®, and other video streaming, gaming, Facebook®, web browsing, emails, and more.

Works with all US cable modem services

Vertical case saves space and enhances cooling

High resistance to lightning and to power surges

Future proof, including DOCSIS 3.1, DOCSIS 3.0, 4 Ethernet ports, port bonding, and more

Fast, easy setup, with high-quality documentation

Supported by expert, friendly techs in the USA if you need help

2 year warranty from a company you can trust

IPv6 next generation Internet addressing support

Multi Processor Technology with ARM based Application Processor



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### What you should know about DOCSIS 3.1, the new cable modem standard

DOCSIS 3.1 is the fastest cable modem standard, supporting Internet speeds of many gigabits per second. Actual speeds depend on your cable modem service and the speed of your Ethernet LAN ports.

Only DOCSIS 3.1 cable services deliver actual speeds of 1 Gbps or more.

This cable modem has four GigE LAN ports, with support for bonding two ports and hardware to support bonding all four ports. Your top actual speed is about 1 Gbps without bonding, about 2 Gbps with 2 ports bonded, and about 4 Gbps with 4 ports bonded.

For bonding to increase your modem's speed to about 2 Gbps or more, your router also needs to support bonding. For more information, see [www.motorolanetwork.com/31](http://www.motorolanetwork.com/31)

Even if you don't have DOCSIS 3.1 service now, you can benefit from the 32x8 DOCSIS 3.0 capability that's also built into this cable modem. This is the fastest DOCSIS 3.0 capability available.

For very high ACTUAL SPEEDS, this cable modem is a great choice.

For even more details about DOCSIS 3.1, please see [www.motorolanetwork.com/31](http://www.motorolanetwork.com/31)

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## Specifications

### General

#### Cable Modem Service Interface

- F-type female 75  $\Omega$  (standard coaxial connector)

#### Ethernet Interface

- Four (4) 10/100/1000 Gigabit Ethernet LAN ports, with Auto-MDI/MDIX and support for bonding\*

#### LEDs

- Front Panel:  
Power, Downstream, Upstream, Online, LAN
- Rear Panel:  
Each Ethernet port has two LEDs indicating data flow and LAN connection speed. Green indicates 1 Gbps; amber indicates 10 or 100 Mbps. Blinking indicates data flow.

#### Dimensions

- 7  $\frac{7}{8}$ " tall x 7  $\frac{1}{4}$ " deep x 2  $\frac{1}{4}$ " wide (200 mm x 184 mm x 57 mm)

#### Weight

18.4 ounces (523 grams)

#### Power Adapter

- DoE-compliant Level VI energy-saving, UL-listed power adapter with 12 Volt DC, 2.5 Amp output and 100-240VAC universal input
- NEMA 1-15 (North American style) 2-prong plug is provided in the US.

#### Operating Temperature

- 32° to 104° F (0° to 40° C)

#### Certifications

- FCC 15B and 15C, FCC MPE, Bureau Veritas 60950-1 ITE safety, CableLabs®, cable service providers

#### Surge Protection

- Ruggedized cable and power lightning protection

#### Warranty

- Two years

### Operating Parameters

#### DOCSIS Standards

- DOCSIS 3.1, 3.0, 2.0, 1.1

#### Downstream

- Data Rate:  
Up to 3.8 Gbps\*
- Bonded Channels:  
Up to 32 SCQAM (DOCSIS 3.0) or 2 OFDM (DOCSIS 3.1)
- Frequency Range:  
108 to 1002 MHz
- Operating Level Range:  
-15 to +15 dBmV

#### Upstream

- Data Rate:  
Up to 3.8 Gbps\*
- Bonded Channels:  
Up to 8 SCQAM (DOCSIS 3.0) or 2 OFDMA (DOCSIS 3.1)
- Frequency Range:  
5 to 85 MHz
- Configurable Diplex Filter:  
5-42 and 5-85 MHz
- Operating Level Range:  
+65 dBmV (64 QAM, single channel)  
+57 dBmV (64QAM, 4-8 channels)  
+65 dBmV (16 QAM, single channel)  
+65 dBmV (OFDMA)

#### Network Protocols

- IPv4, IPv6, TCP, UDP, ARP, ICMP, DHCP, FTP, TFTP, SNMP, HTTP

#### Application Protocol

- SNMP v1/v2/v3

#### DHCP Client

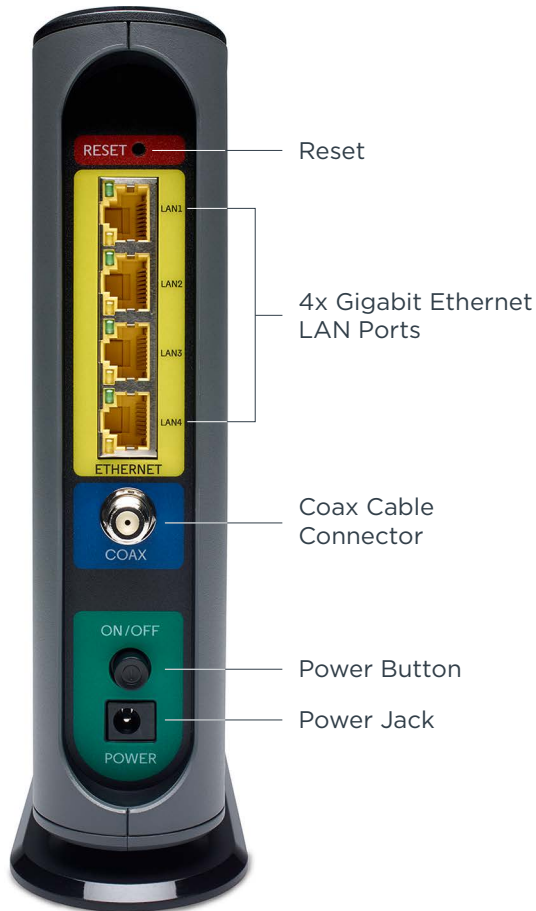
- Automatically retrieves IP and DNS server address from DHCP server through WAN connection

#### Management

- Web-based management interface utility

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## Cable Modem Back Diagram



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## System Requirements

- The cable modem must be connected to a cable modem service that uses any of the DOCSIS standards – 3.1, 3.0, 2.0, 1.1
- The supplied power cube plugs into the most common USA power outlet.

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## Package Contents

- Cable Modem
- Power Cube (UL listed)
- Ethernet Cable (Cat 5e)
- Velcro® Cable Organizer
- Coax Connection Tool
- Quick Start Flyer

\* Data throughput will be reduced by network overhead. Delivered data speeds are also dependent upon the configuration and capacity of the data-over-cable service on which the MB8600 is used.

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