

# Cable Modem plus Router

8x4 343 Mbps + N450 Wi-Fi

The Motorola Model MG7315 cable modem with built-in router supports modem speeds up to 343 Mbps. With its high speed and IPv4 and IPv6 networking support, this is a product designed and built for use today and for years to come. The embedded N450 3x3 wireless router provides the range, wireless speeds and networking support needed for multimedia, Internet video and high-performance networking in a home or office. Power Boost technology amplifies the wireless signal to the legal limit in the U.S.



# MG7315

8x4 343 Mbps\* DOCSIS 3.0 Cable Modem plus N450 Wi-Fi® Router

## **Features**

Fast data speed – Up to 343 Mbps downstream and 123 Mbps upstream with bonding of up to eight channels downstream and four channels upstream. Full-Band Capture Digital Tuning lets service providers deliver faster, more reliable Internet.

#### High speed 3x3 N450 Wi-Fi Router

- N450 Wi-Fi plus 4 Gigabit Ethernet ports
- N450 3x3 Wi-Fi provides wireless Internet access for wireless n, ac, g, and b devices including smartphones, computers, tablets, and HDTVs
- Wireless Power Boost to the FCC limit for extended speed and range
- Four 10/100/1000 Gigabit Ethernet ports for wired connection to computers, HDTVs, game stations, and other Ethernet-capable devices

#### Security and Safety Features

- Advanced Firewall with DoS (Denial-of-Service) attack prevention, plus double SPI and NAT firewall protection
- Guest network access gives visitors Internet services while protecting your local network's information
- Parental control lets parents restrict access to child-inappropriate Web sites
- Browser-based Configuration Manager with easy menus and context-sensitive help

#### Easy installation

**Supports IPv4 and IPv6** – Support for the latest Internet addressing keeps your equipment current.

**Ten status-reporting LEDs** – Power, Downstream, Upstream, Online, LAN (1-4), Wireless, and WPS lights allow easy status monitoring.

DOCSIS 3.0 compatible, and compatible with earlier standards – Provides support for the latest data-over-cable standard DOCSIS 3.0, as well as DOCSIS 1.1 and 2.0, to ensure operation and compatibility with all U.S. operators. DOCSIS (Data Over Cable Service Interface Specification) is the industry standard for transmission of Internet data over cable-based systems in the U.S. and many other countries.

### SNMPv1/v2/v3

Compact, space-saving design

Experienced, U.S.-based technical support

Certified by CableLabs®, Comcast XFINITY®, Time Warner Cable®, and other service providers

Two year warranty



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## **Specifications**

#### General

Cable Modem Service Interface: F-type female 75  $\Omega$  (standard coaxial connector)

Fthernet LAN Interface: 4 X RJ-45 10/100/1000 Mbps Ethernet, with Auto-MDI/MDIX

Wireless: 802.11n/g/b, 3x3 MIMO (Multiple Input Multiple Output)

Router Mode: Dynamic DNS Port Forwarding/DMZ support

> • DHCP Server and Client • RIP V1 and V2

 NAT • Support for up to 253 client devices

Bridging

Security: Stateful Packet Inspection (SPI) IP/MAC/Port filtering

> VPN passthrough: PPTP, IPsec tunneling • Denial of Service Notification

 Parental Control · Wireless MAC address filtering

 Attack Protection • Supports Baseline Encryption (BPI) Management

· Password protected system management · Cable modern diagnostic log

Wireless Networking

and Security:

• Compliant with IEEE 802.11n, g, and, b standards

• Up to 450 Mbps wireless data rate\*\*

• 3x3 Transmit/Receive, MIMO

• Power Boost wireless amplifiers

• 2.4 GHz - 2.484 GHz frequency range

· WDS

· WMM/WME

• WPA-PSK/WPA2-PSK

· WPA/WPA2

· WEP-64/128 TKIP/AES

WPS

• 802.1x Authentication

· 8 SSIDs

• Wireless Quality of Service • Transmit power: 20dBm

Three internal antennas

Status Indicators: Power, Downstream link, Upstream link, Connection status, Ethernet link (1-4), Wireless link, WPS

Size: 8.6" H x 9.1" D x 2.6" W (218m x 231mm x 66mm)

Weight: 21.6 ounces (602 grams)

Power Adapter: DoE-compliant Level VI energy-saving, UL-listed power adapter with 12 Volt DC,

2 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, Wi-Fi Alliance®, CableLabs®,

cable service providers

Surge Protection: Ruggedized cable and power lightning protection

Warranty: Two years



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# **Specifications**

#### **Operating Parameters**

Downstream:

Data Rate\*: Up to 343 Mbps (8 channels), Up to 43 Mbps (single channel)

Frequency: 88 to 1002 MHz (edge to edge)

Modulation: 64 or 256 QAM

Operating Level Range: -15 to +15 dBmV

Upstream:

Data Rate\*: Up to 123 Mbps (4 channels), Up to 31 Mbps (single channel)

Frequency: 5 to 42 MHz (edge to edge)

Modulation: QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM

Operating Level Range: A-TDMA: +8 to +54 dBmV (32QAM, 64QAM)

+8 to +58 dBmV (QPSK)

S-CDMA: +8 to +53 dBmV (all modulations)

Security: DOCSIS 3.0 Security (BPI+, EAE, SSD)

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 at ISP

ToD (RF868): ToD support for local and MSO time synchronization

TFTP Client: TFTP support for cable modem configuration file download

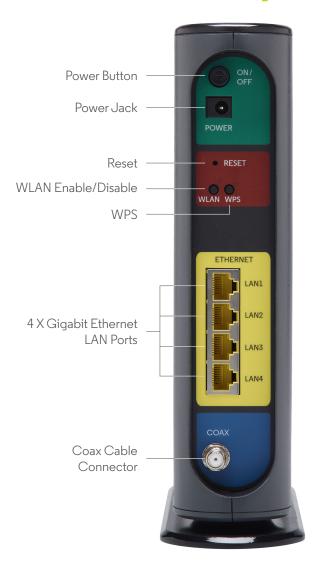
Management: Web-based management interface utility

Core Chipset: Broadcom BCM3383G



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## Cable Modem/Router Back Diagram



## System Requirements

- The cable modem must be connected to a cable modem service that uses any of the DOCSIS standards - 3.0, 2.0, 1.1.
- · Directly connected devices, such as computers, HDTVs, and game stations, must have an Ethernet port.
- Devices connected wirelessly must have wireless n, ac, g, or b capability.
- The supplied power cube plugs into the most common USA power outlet.

## **Package Contents**

- · Cable Modem with built-in Wi-Fi Router
- · Power Cube
- Ethernet Cable
- Velcro<sup>®</sup> 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 MG7315 is used.
- \* \* 450 Mbps is the maximum speed derived from IEEE Standard 802.11 specifications. Actual speeds will vary.

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