MOTOROLA

SB5102 SURFboard® Cable Modem

Prepare to experience the Internet without limits and put the power of broadband to work for you with a Motorola cable modem

HIGHLIGHTS

Compatible with Windows®, Macintosh®, and UNIX® computers

DOCSIS® 1.1- and 2.0-certified

10/100Base-T Ethernet (RJ-45) high-speed data port

Ethernet cable included

Front-panel LEDs indicate status and simplify troubleshooting

User-friendly online diagnostics

Supports standard Internet software

Supports up to 63 computers on a single Internet connection (additional networking hardware required)

Remote configuration and monitoring from the headend using SNMP and TFTP

Stylish and space-saving enclosure

The easy-to-use Motorola SB5102 cable modem unlocks the potential of high-speed data service for consumers. Consumers can get their favorite Web sites quickly, download graphics with unbelievable ease, and enjoy real-time interactive PC gaming and expand console gaming with broadband Internet access from the cable modem market leader—Motorola.

Motorola's next-generation SURFboard Cable Modem (SB5102) is powerful, convenient, flexible, simple to install, and easy to use. It incorporates DOCSIS® 2.0 technology, providing up to three times the upstream capacity of DOCSIS 1.0 or 1.1—allowing consumers to surf the Internet at as much as 30 Mbps. For a smooth transition, the SB5102 is backwards-compatible with DOCSIS 1.0 and 1.1. Operators can deploy the SB5102 without service interruption, maximizing their current infrastructure investment while simultaneously offering new value-added services.

With Motorola's SB5102 cable modem, high-speed Internet access is always at one's fingertips. Always on and always connected, a cable modem is much faster than a traditional dial-up modem, enabling consumers to enjoy the Internet the way it should be. With the power and speed of the Motorola SB5102 cable modem, consumers will be surfing the Web like never before, downloading, working, shopping, gaming, e-mailing—all faster and easier.

The SB5102 is convenient for operators, too. Installation couldn't be simpler. Just connect the coaxial cable to the SB5102 and an existing cable outlet, connect the power, and connect the PC to the SB5102's Ethernet port. Troubleshooting is a breeze, too, thanks to front-panel status indicator LEDs and an online diagnostics page.

Once consumers have experienced broadband powered by the Motorola SB5102 cable modem, they'll never want to go back to dial-up again.

SB5102 SURFBOARD CABLE MODEM

GENERAL SPECIFICATIONS

Cable Interface	F-connector, female, 75 Ω
CPE Network Interface	10/100Base-T Ethernet
Data Protocol	TCP/IP
Dimensions	6.2 in H x 2.3 in W x 6.0 in D (15.75 cm x 5.8 cm x 15.24 cm)
Power	9 W (nominal)

INPUT POWER

North America	105 to 125 VAC, 60 Hz
Outside North America	100 to 240 VAC, 50 to 60 Hz

ENVIRONMENTAL

Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage Temperature	–22 °F to 176 °F (–30 °C to 80 °C)
Operating Humidity	5 to 95% R.H. (non-condensing)

DOWNSTREAM

Modulation	64 or 256 QAM
Maximum Data Rate*	38 Mbps (256 QAM at 5.361 Msym/s)
Bandwidth	6 MHz
Symbol Rate	64 QAM 5.057 Msym/s, 256 QAM 5.361 Msym/s
Operating Level Range	–15 to +15 dBmV
Input Impedance	75 Ω (nominal)

UPSTREAM

Modulation	8***, 16, 32***, 64***, 128**** QAM or QPSK
Maximum Channel Rate**	30 Mbps (64 QAM at 5.120 Msym/s)
Bandwidth	200 kHz, 400 kHz, 800 kHz, 1.6 MHz, 3.2 MHz, 6.4*** MHz
Symbol Rates	160, 320, 640, 1280, and 2560 and 5120*** ksym/s
Operating Level Range	
A-TDMA	8 to 54 dBmV (32 QAM, 64 QAM)
	8 to 55 dBmV (8 QAM, 16 QAM)
	8 to 58 dBmV (QPSK)
S-CDMA	8 to 53 dBmV (all modulations)
Output Impedance	75 Ω (nominal)
Frequency Range	5 to 42 MHz (edge to edge)
Compatibility	
PC	80486, Pentium, or later; Windows® 2000 or XP or Linux with Ethernet connection (Older versions of Windows, although not specifically supported, will work with this cable modem)
Macintosh	Power PC or later; OS 8 or higher; Ethernet connection
UNIX	Ethernet connection
Home Networking	Ethernet router or wireless access point

* Actual speeds will vary, and are often less than the maximum possible. Data transmission speed is approximate and depends on the configuration and capacity of your network, as well as the amount of traffic on the network.

** Actual data throughput will be less due to physical layer overhead (error correction coding, burst preamble, and guard interval).

*** With A-TDMA- or S-CDMA-enabled CMTS.

**** With S-CDMA-enabled CMTS.

Certain features may not be activated by your service provider, and/or their network settings may limit the feature's functionality. Additionally, certain features may require a subscription. Contact your service provider for details.

All features, functionality, and other product specifications are subject to change without notice or obligation.