

SB5101

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® 2.0 compliant, Euro-DOCSIS 2.0 compliant

10/100Base-T Ethernet (RJ-45) data port (Ethernet cable included)

Optional Installation Assistant program on CD-ROM (SB5101U/UE) guides you through installation on the PC

Front-panel LEDs indicate status and simplify troubleshooting

Easy to use. The Motorola SURFboard Cable Modem (SB5101 Series) unlocks the potential of offering high-speed data service to 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.

Powerful, flexible, and easy to install and use, Motorola's next-generation SB5101 Series cable modem maximizes your current infrastructure investment while allowing you to offer new value-added services to your customers. Incorporating DOCSIS®/Euro-DOCSIS 2.0 technology, which provides up to three times the upstream capacity of DOCSIS/Euro-DOCSIS 1.0 or 1.1, the SB5101 Series allows your customers to surf the Internet at speeds as high as 30 Mbps. For a smooth transition, the SB5101 Series is backwards-compatible with DOCSIS/Euro-DOCSIS 1.0 and 1.1.

The Motorola SB5101 Series cable modem is always on and always connected, enabling quick and easy high-speed Internet services for surfing, downloading, working, shopping, gaming and e-mailing.

Installation couldn't be simpler—just connect the coaxial cable to the SB5101 Series using an existing cable outlet, then connect the cable modem to a PC via either Ethernet or optional USB (SB5101U/UE). Troubleshooting is a breeze, too, thanks to front-panel status indicator LEDs and an online diagnostics page.

Motorola cable modems provide a historically reliable platform. The SB5101 Series has an annualized field failure rate of less than 0.2%. With the power and speed of Motorola's SB5101 Series cable modem, easy and reliable high-speed Internet access is always at your customers' fingertips.



SB5101N Series



SB5101U Series

Motorola Cares for the Environment

Motorola believes in “going green” — we have a global commitment to sustaining the environment. Motorola has been working for years to continually improve our environmental profile. We are in step with our customers and their increasing interest in partnering with a company that will help them reduce their carbon footprint, while offering compelling products that will help them grow their eco-conscious customer base.

Motorola designed the SB5101 to minimize its impact on the environment

Motorola’s modems comply with international environmental and energy efficient standards, including ENERGY STAR qualified power supplies, European Code of Conduct compliance for both the power supply and modem, and lead-free circuit boards as certified by RoHS compliance.*

Packaging

The SB5101 uses Motorola’s new, environmentally friendly package design; our modems ship in single pack boxes. By both eliminating the suspension plastic and reducing the box size, Motorola is helping to reduce the environmental impact of the SB5101. As an even more impactful step, operators may choose to receive the products in a bulk package, thus reducing the extra waste and transport weight associated with single packages. Motorola’s bulk packaging solutions eliminate excess installation CDs and USB cables. Additionally, customers have the option to reduce the number of cables shipped with each unit.* The packaging is 100% recyclable. Our packaging is now labeled with standard recycling codes (such as ♻️) to make it easier for our customers to identify recycling opportunities.

Specifications

Highlights, continued

User-friendly online diagnostics page

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

Multi-language User Guide via World Wide Web, CD-ROM (optional)

Optional 1.1 USB data port available (includes CD-ROM [SB5101U/UE])

GENERAL

Cable Interface	F-Connector, female, 75 Ω
CPE Network Interface	10/100Base-T Ethernet, USB (optional)
Data Protocol	TCP/IP
Dimensions	6.2 in H x 2.3 in W x 6.0 in D (15.75 cm x 5.84 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 158 °F (-30 °C to 70 °C)
Operating Humidity	5 to 95% R.H. (non-condensing)
Operating Altitude	-200 feet to 10,000 feet AMSL
Operating Humidity	5% to 95%
Power supply meets H.R.6, ENERGY STAR, and CoC (European Code of Conduct) requirements	
100% recyclable packaging	
Unit meets CoC requirements for Energy Consumption of Broadband Equipment	
Unit is RoHS compliant (lead free)	

DOWNSTREAM

Modulation	64 or 256 QAM
Maximum Data Rate**	DOCSIS ≤ 38 Mbps Euro-DOCSIS ≤ 51 Mbps
Bandwidth	DOCSIS 6 MHz Euro-DOCSIS 8 MHz
Symbol Rate	
DOCSIS	64 QAM 5.057 Msym/s, 256 QAM 5.361 Msym/s
Euro-DOCSIS	64 QAM 6.952 Msym/s, 256 QAM 6.952 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
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**** ksymbols
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	DOCSIS 5 to 42 MHz (edge to edge); Euro-DOCSIS 5 to 65 MHz (edge to edge)

COMPATIBILITY

PC	90496, Pentium, or later; Windows Vista™, 2000, or XP; Linux® with Ethernet connection (older versions of Windows, although not specifically supported, will work with this cable modem)
Macintosh®	Power PC or later; OS 9 or higher; Ethernet connection
UNIX®	Ethernet connection

* Green product features are applicable to new SB5101 models, not the legacy platform.

** 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.



Powered by an ENERGY STAR® qualified adapter for a better environment

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