



SB5101 Cable Modem

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

Motorola's next-generation SB5101 cable modem 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 SB5101 is backwards compatible with DOCSIS 1.0 and 1.1. Operators can deploy the SB5101 without service interruption, maximizing their current infrastructure investment while simultaneously offering new value-added services.



HIGHLIGHTS INCLUDE:

- Compatible with Windows®, Macintosh®, and Unix® computers
- DOCSIS® 1.1 and 2.0 Certified
- 10/100Base-T Ethernet (RJ-45) and USB highspeed data ports
- Ethernet and USB cables included
- Installation Assistant program on CD-ROM guides you through installation on the PC
- Top-mounted Standby switch for increased security
- Front-panel LEDs indicate status and simplify troubleshooting
- 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 head-end using SNMP and TFTP
- Stylish and space-saving enclosure
- Multi-language User Guide on CD-ROM

GENERAL SPECIFICATIONS

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|-----------------------|---|
| Cable Interface | F-Connector, female, 75 Ω |
| CPE Network Interface | USB, Ethernet 10/100Base-T |
| Data Protocol | TCP/IP |
| Dimensions | 6.2"H x 2.3"W x 6.0"L |
| Power | 9 W (nominal) |
| Input Power | North America 105 – 125 VAC, 60 Hz International 100 – 240 VAC, 50 – 60 Hz |

DOWNSTREAM

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|-----------------------|--|
| Modulation | 64 or 256 QAM |
| Maximum Data Rate* | 38 Mbps (256 QAM at 5.361 Msym/s) |
| Bandwidth | 6 MHzp |
| 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) |
| Frequency Range | 88 to 860 MHz |

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) |

ENVIRONMENTAL

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

* 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.