

# **SURFboard® SB5100E** **Cable Modem**



Motorola's next generation SURFboard SB5100E Cable Modem incorporates the latest Euro-DOCSIS 2.0 Advanced Time Division Multiple Access (A-TDMA) and Synchronous Code Division Multiple Access (S-CDMA) technologies to provide up to three times greater upstream capacity than Euro-DOCSIS 1.0/1.1 systems. Packed with power, the SB5100E is interoperable and backward compatible with Euro-DOCSIS 1.0 and 1.1 for a fast and timely transition - operators can deploy the SB5100E today without a service interruption. The Motorola SURFboard SB5100E is flexible and allows operators to maximize their current infrastructure investments and also offer additional cost-effective services, all at the same time. Convenient for both operators and end-users alike, the Motorola SURFboard SB5100E ensures end-user security via a top-mounted stand-by button that quickly isolates the USB and Ethernet connection to the PC without disconnecting the cable modem from the RF network. What's more, the SB5100E simplifies troubleshooting with its front panel status indicator LEDs and integrated HTML diagnostics page. The Motorola SURFboard SB5100E is competitively priced and includes all the features found in previous SURFboard models, such as USB and Ethernet connectivity, software upgrades available over the network, proven field reliability and quality, advanced RF design and a high-performance processor.

Highly functional and also attractive, the Motorola SURFboard SB5100E features a new, compact design that is a stylish and clutter-free addition to virtually any desktop.



*Take advantage of Euro-DOCSIS 2.0 technology today with Motorola's next-generation SURFboard SB5100E Cable Modem.*

### **HIGHLIGHTS INCLUDE:**

- Euro-DOCSIS 2.0 based
- Integrated A-TDMA and S-CDMA technology – capable of providing up to 30 Mbps upstream data rate
- WHQL certified USB drivers for Windows® 2000/Me/XP
- New stylish case saves valuable desk space
- Front panel status LEDs and built-in HTML-based diagnostics for quick and easy troubleshooting
- USB and Ethernet connectivity simplifies installation
- Compatible with Windows® 95/98/2000/Me/NT/XP, Mac, Linux and UNIX
- Supports up to 32 users (1 via USB and 31 via Ethernet or 32 users on Ethernet)
- Capable of downloading at speeds up to 100 times faster than 28.8k analog phone modem\*
- No telephone lines needed – always on, always connected



## GENERAL SPECIFICATIONS

Downstream	Upstream	General	Environmental
Modulation: 64 or 256 QAM	Modulation: 8***, 16, 32***, 64***, 128*** QAM or QPSK	Cable Interface: F-connector, female, 75 Ω	Operating Temperature: 0° to 40° C
Maximum Data Rate:* Up to 51 Mbps	Maximum Data Rate:** Up to 30 Mbps	CPE Network Interface: USB, Ethernet 10/100Base-T	Storage Temperature: -30° to 80° C
Bandwidth: 8 MHz	Bandwidth: 200 kHz, 400 kHz, 800 kHz, 1.6 MHz, 3.2 MHz, 6.4*** MHz	Data Protocol: TCP/IP	Operating Humidity: 0 to 95% R.H. (non-condensing)
Symbol Rate: 64 QAM 6.952 Msym/s 256 QAM 6.952 Msym/s	Symbol Rates: 160, 320, 640, 1280, 2560 and 5120*** ksym/s	Dimensions: 6.2" H 2.3"W 6.0"L	
Operating Level Range: 64 QAM 43 to 73 dBμV 256 QAM 47 to 77 dBμV	Operating Level Range: A-TDMA: 68 to 114 dBμV (32 QAM, 64 QAM) 68 to 115 dBμV (8 QAM, 16 QAM) 68 to 118 dBμV (QPSK) S-CDMA: 68 to 113 dBμV (all modulations)	Power: 9 Watts (nominal)	
Input Impedance: 75 Ω (nominal)	Output Impedance: 75 Ω (nominal)	Input Power: 100 to 240VAC, 50 to 60Hz	
Frequency Range: 108 to 860 MHz	Frequency Range: 5 to 65 MHz (edge to edge)		

## FEATURES

- Integrated EuroDOCSIS 2.0 A-TDMA and S-CDMA technology
- 10/100 Base-T Ethernet and USB connectivity
- Supports up to 32 users (1 via USB and up to 31 via Ethernet or 32 users on Ethernet)
- Ethernet and USB connections are bridged allowing LAN traffic between USB device and Ethernet LAN
- Remote management via SNMP
- Software upgradeable over the network
- Top-mounted stand-by button enhances network security to end-user
- Front panel LEDs and built-in HTML-based diagnostic user interface for easy troubleshooting
- Multi-language user guide
- Global safety approval and certificates:
  - CB scheme (EN60950/IEC60950)
  - CE-Evaluation test report (EN55022/EN55024)

## CONCLUSION

The introduction of the Motorola SURFboard SB5100E Cable Modem further demonstrates Motorola's technological leadership, as well as its overall commitment to the cable industry. Equipped to meet Euro-DOCSIS 2.0 standards, the SB5100E is a next-generation cable modem that's ready to take advantage of tomorrow's advanced technologies — today. It's interoperable and backward compatible with existing Euro-DOCSIS 1.0 and 1.1 systems and allows for cost-efficient incremental system upgrades — and it's also user-friendly, convenient, flexible and simple to install. The Motorola SURFboard SB5100E is Euro-DOCSIS 2.0 based to ensure advanced service offerings, excellent performance, seamless functionality and exceptional value... now that's innovative technology.

\*When comparing download speeds with a traditional 28.8k analog modem. Actual speeds will vary, and are often less than the maximum possible. Upload and download speeds are affected by several factors including, but not limited to: network traffic and services offered by your cable operator or broadband service provider, computer equipment, type of server, number of connections to server, and availability of Internet router(s).

\*\*Actual speeds will vary. Speeds of 30 Mbps are only attainable with A-TDMA or S-CDMA technology.

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

Specifications are subject to change without notice.

MGBI

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