SURFboard® SB5120

Cable Modem

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intelligence everywhere™

Motorola's next-generation SURFboard SB5120 Cable Modem incorporates the latest DOCSIS™ 2.0 Advanced Time Division Multiple Access (A-TDMA) and Sychnronous Code Division Multiple Access (S-CDMA) technologies to provide up to three times greater upstream capacity than DOCSIS 1.0/1.1 systems. Packed with power, the SB5120 is interoperable and backward compatible with DOCSIS 1.0 and 1.1 for a fast and timely transition - operators can deploy the SB5120 today without a service interruption.

The Motorola SURFboard SB5120 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 SURFboard SB5120 ensures end-user security via a top-mounted stand-by switch that quickly isolates the USB and Ethernet connection to the PC without disconnecting the cable modem from the RF network. What's more, the SB5120 simplifies troubleshooting with its front panel status indicator LEDs and integrated HTML diagnostics page. The SURFboard SB5120 is copetitively priced and includes many of the valuable features found in previous SURFboard models, such as USB and Ethernet connectivity, software upgrades available over the network, proven field reliability, a quality, advanced RF design, and a high-performance processor.

Highly functional and attractive, the Motorola SURFboard SB5120 features a new, compact design that is a stylish and clutter-free addition to virtually any desktop.

Take advantage of DOCSIS 2.0 technology today with Motorola's next-generation SURFboard SB5120 Cable Modem.

HIGHLIGHTS INCLUDE:

- DOCSIS 1.1 and 2.0 certified
- Integrated A-TDMA and S-CDMA technology - capable of providing up to 30 Mpbs upstream data rate
- WHQL certified USB drivers for Windows® 2000/Me/XP
- New, stylish industrial design 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/NTXP/XP; Mac® ; Linux® , and UNIX®
- Supports up to 32 users (one 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

CableLabs CERTIFIED

Designed for Microsoft® Windows® XP Windows® 2000 Windows® ME

GENERAL SPECIFICATIONS

General

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 Watts (nominal)
Input Power	
North America	105-125 VAC, 60 Hz
International	100-240 VAC, 50-60 Hz

Environmental

Operating Temp	0º C – 40º C
Storage Temp	-30º C to 80º C
Operating Humidity	0 to 95% R.H. (non-condensing)

Downstream

Modulation	64 or 256 QAM
Maximum Data Rate*	38 Mbps
Bandwidth	6 MHz
Symbol Rate	64 QAM 5.069 Msym/s
Symbol Rate	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
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)

FEATURES

- Integrated DOCSIS 2.0 A-TDMA and S-CDMA technolgoy
- 10/100 Base-T Ethernet and USB connectivity
- Supports up to 32 users (one via USB and 31 via Ethernet or 32 users on Ethernet)
- Ethernet and USB connections are bridged, allowing LAN traffic between the USB device and the Ethernet LAN
- Remote management via SNMP
- Sorfware upgradeable over the network
- Top-mounted stand-by switch 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:
  - FCC Part 15
  - UL 1950

CONCLUSION

The introduction of the Motorola SURFboard SB5120 Cable Modem further demonstrates Motorola's technological leadership, as well as its overall commitment to the cable industry. Equipped to meet DOCSIS 2.0 standards, the SB5120 is a next-generation cable modem that's ready to take advantage of tomorrow's advanced technoogies - today. It's interoperable and backward compatible with existing DOCSIS 1.0 and 1.1 system and allows for cost-efficient incremental system upgrades - and it's also user-friendly, concenient, flexible, and simple to install. The Motorola SURFboard SB5120 is 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).
(1) Check with your local cable operator to determine the number of connections allowed and associated service charges.
**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.

Specifications are subject to change without notice.

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