

## Now you can offer your PC with a cable modem... in one convenient package.

The Internet via cable wave is growing by leaps and bounds. And, as cable modem use becomes more widespread, so does the demand for PCs equipped with high-speed cable modem access.

Motorola knows you'll need a cost-effective solution to keep up with the demand and has created the SURFboard SB4000 cable modem, a PCI-based internal DOCSIS cable modem that's ready for installation—and ready for Internet surfing. The SB4000 is fast—capable of downloading at speeds up to 100 times faster than a traditional 28.8k analog phone modem\*—and easy to install. The SB4000 is a DOCSIS 1.1 hardware-based, plug-n-play cable modem that's compatible with numerous operating systems.

It utilizes an easy-

to-access, HTML-based user interface for monitoring and troubleshooting, and is remotely manageable

via SNMP. Besides incredible speed, the SB4000 offers all of the advanced features of the SB4100 external cable modem—high-performance processors, advanced RF design, operator-friendly diagnostics and top-notch in field reliability. It's the ideal DOCSIS cable modem solution for your PC.



- DOCSIS 1.0 CableLabs certified
- DOCSIS 1.1 hardware based
- Complies with PCI V2.2 Interface
- ACPI 1.2 power management
- Compatible with Windows 98/2000/Me
- Remote management via SNMP
- Software upgradeable over the network
- HTML-based user interface for monitoring and troubleshooting
- Capable of downloading at speeds up to 100 times faster than a traditional 28.8k analog phone modem\*
- Based on Broadcom's new 3350 Chip
- WHQL approved
- Low cost, ideal solution for PC OEM



**MOTOROLA**  
intelligence everywhere™

## SURFBOARD SB4000 SPECIFICATIONS

### DOWNSTREAM

Demodulation . . . . . 64 or 256 QAM  
Max. Data Rate\* . . . . . 27 Mbps (64 QAM),  
38 Mbps (256 QAM)  
Bandwidth . . . . . 6 MHz  
Symbol Rate . . . . . 5.069 Msym/s (64 QAM),  
5.361 Msym/s (256 QAM)  
Operating Level . . . . . -15 to +15 dBμV 90 dBμV  
Range . . . . . 75 Ω (nominal)  
Input Impedance . . . . . 88 to 860 MHz  
Frequency Range . . . . . 30kHz (Min. stop size)

### UPSTREAM

Modulation . . . . . QPSK or 16 QAM  
Max. Data Rate\* . . . . . 10 Mbps  
Bandwidth . . . . . 200 kHz, 400 kHz,  
800 kHz,  
1.6 MHz, 3.2 MHz  
Symbol Rates . . . . . 160, 320, 640, 1280,  
2560 ksym/s  
Operating Level Range . . . . . +8 to +55 dBμV (16 QAM)  
+68 to +58 dBμV (QPSK)  
Output Impedance . . . . . 75 Ω (nominal)  
Frequency Range . . . . . 5 to 42 MHz  
(edge to edge)

### ENVIRONMENTAL

Operating Temperature . . . . . 0 to 40° C  
Storage Temperature . . . . . -30° C to +80° C  
Operating Humidity . . . . . 0 to 95% R.H.  
(non-condensing)

### GENERAL

Interface to PC . . . . . PCI V2.2  
Cable Interface . . . . . F-Connector, Female 75 Ω  
Data Protocol . . . . . TCP/IP  
Dimensions . . . . . 3.875" H x 6.5" L  
Power . . . . . 8 Watts (nominal)  
Max Input Power . . . . . +5 VDC @ 800mA  
+12 VDC @ 350mA

## CONCLUSION

With its combination of ease, convenience and low cost, the SURFboard SB4000 is the ideal solution for OEMs looking to include cable modem equipment in their products. Plus, the SURFboard SB4000 offers the same great features—and performance—of Motorola's external cable modems. And, with more than 2,000,000 of our external DOCSIS cable modems already shipped throughout the world, customers everywhere have come to equate Motorola's cable modems with speed and reliability.

The SURFboard SB4000. There's no better way to stay atop the wave.

\* 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).

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Specifications subject to change.



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