

SBG1000

Wireless Cable Modem Gateway

with Integrated SURFboard® Technology



Motorola's Wireless Cable Modem Gateway, the SBG1000, combines an industry-leading SURFboard® Cable Modem, an 802.11b wireless access point, a router with five-port 10/100Base-T switch, a print server and an advanced firewall into one, compact product. It's the perfect networking solution for the home, home office or small business/enterprise — users can create a custom network to share a single broadband connection, files, printers and peripherals, with or without wires. Cost-effective and efficient — the SBG1000 eliminates the need for five separate products and allows users to maximize the potential of their existing resources. The SBG1000 also offers enhanced network security for both wired and wireless users and offers network operators the ability to provide value-added managed services such as Content Filtering/Parental Control.

High speed Internet access, networking and security in one, convenient package

HIGHLIGHTS INCLUDE:

- Integrated SURFboard Cable Modem
- Router with 5-port 10/100Base-T Switch
 - Half/full duplex operation
 - Five dual-purpose switch/uplink ports
 - Auto-MDIX cross over cable detection
- Wireless access point via 802.11b
- Advanced firewall
 - Stateful Packet Inspection (SPI)
 - Intrusion Detection
 - Denial of Service (DoS) Attack Prevention
- Print Server (Windows, Mac, Linux)
- Network up to 253 PCs (Full Class "C" Network)
- VPN pass-through (IPSec, PPTP, L2TP)
- Optional Accessories
 - Wired External High-gain Diversity Antenna expands wireless network coverage
 - Wireless PC Card for laptops
 - Wireless USB Adapter for desktops or laptops
- HPNA 2.0
 - Network PCs over existing phone lines



Built with an integrated Motorola SURFboard Cable Modem, the SBG1000 is always on, always connected. It's a DOCSIS cable modem that is capable of surfing the Internet at incredible speeds — up to 100 times faster than a traditional 28.8* modem — and enables multiple users to share a single broadband connection.

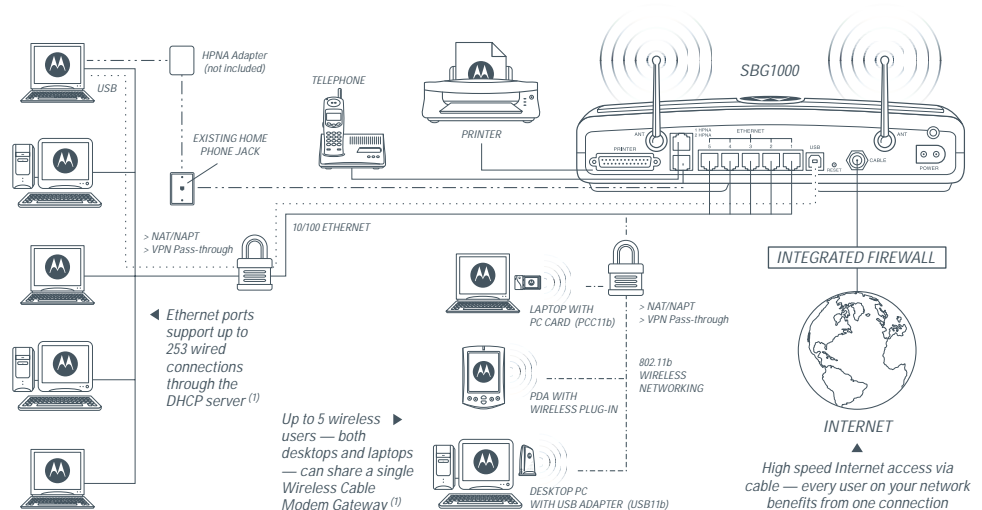
The Motorola SBG1000 merges the advantages of the SURFboard Cable Modem with the mobility of a wireless LAN (WLAN). It includes a wireless access point, via DSSS 802.11b embedded chipset, which allows users (with optional accessories) to roam in, and around, the home, home office or small business and remain connected to the network. Now your subscribers can place computers and peripherals where they're convenient, not just where there's an available connection.

In addition to a WLAN, the Motorola SBG1000 includes an Ethernet router with five dual-purpose switch/uplink ports. Capable of static and dynamic routing and half/full duplex capability, this "plug 'n' play" router allows users to combine wired and wireless technologies to create a completely customized network. It's also a cost-effective solution to network expansion.

Plus, the Motorola SBG1000 increases network functionality through an embedded print server that is compatible with Windows®, Mac and Linux printing protocols. Users connected to the network can share a single printer, maximizing its potential.

Fast, efficient, flexible and mobile, the Motorola SBG1000 is also secure. It includes an advanced firewall that helps protect the network from hackers and other outside interference yet allows desired files to pass through with ease. The firewall eliminates the need for the stand-by switch found on previous cable modems through built-in Denial of Service attack prevention, stateful packet inspection and Demilitarized Zone (DMZ). And, the Motorola SBG1000's firewall also allows VPN tunnel protocols to pass through, which hides the network from the outside world.

The Wireless Cable Modem Gateway is a high speed cable modem that supports up to 253 Ethernet users and 5 wireless users. And, it has a USB port, a parallel port and two telephone jacks to maximize networking options.



5 functions

The Wireless Cable Modem Gateway delivers: the speed of a DOCSIS cable modem; the mobility of a wireless LAN; the flexibility of a multi-port Ethernet router; the efficiency of shared resources; the security of a firewall and VPN; and the simplicity of "No New Wires" technology. It's the network that consumers want.



System Accessories



Motorola USB Adapter (USB11b)

Connects either desktop or laptop computers to the network.



Motorola PC Card (PCC11b)

Connects laptops to the wireless network so users can roam in, or around, the home and small office and remain connected.



Motorola External Wired Diversity Antenna (ANT11b)

Increases the performance and coverage of the network, even in difficult areas.

GENERAL SPECIFICATIONS

| Wireless | | Router | | Electrical | | Environmental | |
|----------------------|---|-------------------------------|-------------------------|---------------------|----------------------------|--------------------------|---|
| Standards Compliance | IEEE 802.11, 802.11b Direct Sequence Spread Spectrum - DSSS | Ethernet Standards Compliance | IEEE 802.3, IEEE 802.3u | Input Voltage Range | -100 – 240 VAC, 50 – 60 Hz | Operating Temp | 0° C – 40° C, -150 to 10000 ft |
| RF Frequency Range | 2.4 to 2.4835 GHz, 2.4 to 2.497 GHz for Japan | Protocols Supported | RIP, RIPv2 | Power Consumption | 18 Watts | Storage Temp | -30° C to 80° C |
| Data Rate Modulation | Auto, 11, 5.5, 2, and 1 Mb/s 11 and 5.5 Mb/s = CCK, 2 Mb/s = DQPSK, 1 Mb/s = DBPSK | Number of Ports | 5 | Print Server | Windows® | Humidity | 5 to 95% (non-condensing) |
| Number of channels | Europe = 13, Spain = 2, France = 4, US = 11, Japan = 14 | Number of Uplink Ports | 5 | Mac | | Mechanical | |
| Transmit Power | 17.5 dBm (EIRP) | | | Linux | | Antenna | 2 External Articulating Antennas, with Unique Connectors per FCC Requirements |
| Receive Sensitivity | -83 dBm at 11 Mbps | | | | | LED Indicators | |
| | | | | | | Modem | Receive, Send, Online, Internet |
| | | | | | | Router (Each Port 1 – 5) | Activity, 10/100, Half/Full, Link |
| | | | | | | Access Point | Wireless |
| | | | | | | Other | USB, Power, Model Number |
| | | | | | | Interfaces | (1) AC Power, (1) F-Type, (5) RJ-45, (2) RJ-11, (1) DB-25 |
| | | | | | | Dimensions | 290 W x 160 D x 70 H (mm) |
| | | | | | | Weight | 0.8 lbs (Unit Only) |

CABLE MODEM SPECIFICATIONS

| Downstream | | Upstream | | General | | Environmental | |
|-----------------------|-----------------------|-----------------------|--|-----------------------|----------------------------------|-----------------------|------------------------------|
| Modulation | 64 or 256 QAM | Modulation | 16 QAM or QPSK | Cable Interface | F-Connector, female, 75 Ω | Operating Temperature | 0° to 40° C |
| Maximum Data Rate* | 38 Mbps | Maximum Data Rate | 10 Mbps | CPE Network Interface | USB, Ethernet | Storage Temperature | -30° to 80° C |
| Bandwidth | 6 MHz | Bandwidth | 200 kHz, 400 kHz, 800 kHz, 1.6 MHz, 3.2 MHz | | 10/100Base-T (auto sensing) | Operating Humidity | 0 to 95% R.H. non-condensing |
| Symbol Rate Msym/s | 64 QAM 5.069 | Symbol Rates | 160, 320, 640, 1280 and 2560 ksym/s | Data Protocol | TCP/IP | | |
| Symbol Rate Msym/s | 256 QAM 5.361 | Operating Level Range | +8 to +55 dBmV (16 QAM) +8 to +58 dBmV (QPSK) | Dimensions | 7.2" H x 2.0" W x 7.8" L | | |
| Operating Level Range | -15 to +15 dBmV | Output Impedance | 75 Ω (nominal) | Power | 9 Watts (nominal) | | |
| Input Impedance | 75 Ω (nominal) | Frequency Range | 5 to 42 MHz (edge to edge) | Input Power | 100-240 VAC, 50-60 Hz | | |
| Frequency Range | 88 to 860 MHz | | | | | | |

CONCLUSION

With the Motorola SBG1000, we've merged high speed Internet access, networking and security into one. A SURFboard Cable Modem, wireless access point, Ethernet router with 5-port switch, print server and advanced firewall, the SBG1000 allows multiple users to enjoy all the benefits of a full-fledged network with, or without wires.

*When compared to traditional 28.8k analog modems. 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.



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