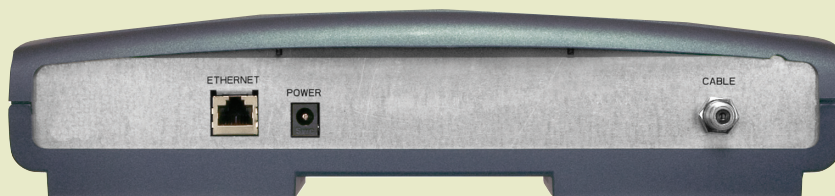


# SB6100

## Downstream Channel Bonding Cable Modem



Motorola's easy-to-use SB6100 downstream channel bonding cable modem unlocks the potential of offering innovative higher-bandwidth data and multimedia services to your customers—giving you the tools you need to compete with the threats posed by advanced DSL and alternative broadband services.

Competition for subscribers has never been fiercer, as competing providers increasingly deploy higher speed services aimed at stealing not only residential data customers but also residential video customers. Higher-speed services enable you to:

- Protect your installed base of high-speed data customers
- Deliver high-bandwidth, multimedia services to your customers
- Deliver competitive, high-capacity commercial services to business customers

The Motorola SB6100 downstream channel bonding cable modem incorporates DOCSIS® 2.0 technology and key elements of the evolving DOCSIS 3.0 technology, utilizing channel bonding to provide up to four times the downstream capacity, as defined in the DOCSIS 2.0 standard. The SB6100 is a pre-DOCSIS 3.0 product that enables you to provide your customers advanced multimedia services through additional downstream bandwidth availability. It provides you with an economic option for greater than

100 Mbps throughput, without the need for hybrid fiber coax (HFC) plant upgrade.

The SB6100 is backwards-compatible with DOCSIS 1.0, 1.1, and 2.0 and can be deployed without service interruption, maximizing current infrastructure investment and enabling deployment of new value-added services. It provides 10/100/1000Base-T (RJ-45) Ethernet connectivity and includes intuitive, easy-to-read front-panel operational status LEDs for power, receive, send, online, and PC connectivity.

With Motorola's cable modems, high-speed Internet access has always been at your fingertips—always on and always connected. The SB6100 channel bonding cable modem enhances this experience providing users four times the downstream bandwidth capability to enable a multitude of advanced multimedia and commercial services. As part of Motorola's broadband family of products, the SB6100 is the ideal competitive solution for the high-end residential user, the small home office (SOHO) user, and the medium- to large-business customer.

## GENERAL SPECIFICATIONS

Cable Interface	F-Connector, female, 75 $\Omega$
CPE Network Interface	10/100/1000Base-T
Data Protocol	TCP/IP
Dimensions	11.5 in (290 mm)W x 5.5 in (160 mm) D x 2.5 in (70 mm) H
Power	15 W (nominal)
Input Power	
North America	105 to 125 VAC, 60 Hz
International	100 to 240 VAC, 50 to 60 Hz

## 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)

## DOWNSTREAM

Modulation	64 or 256 QAM
Maximum Data Rate*	up to 152 Mbps (256 QAM at 5.361 Msym/s)
Bandwidth	up to 24 MHz
Symbol Rate	64 QAM 5.057 Msym/s 256 QAM 5.361 Msym/s
Operating Level Range	-15 to +15 dBmV
Input Impedance	75 $\Omega$ (nominal)
Frequency Range	65 to 930 MHz

## UPSTREAM

Modulation	8***, 16, 32***, 64***, 128****, 256 QAM or QPSK, BPSK
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 $\Omega$ (nominal)
Frequency Range	5 to 42 MHz 5 to 55 MHz (Japan)

## COMPATIBLE WITH

PC	80486, Pentium, or later running Windows® 95, Windows 98, Windows ME, or Windows XP; Ethernet connection required  Linux with Ethernet connection
Macintosh	Power PC or later running OS 8 or higher; Ethernet connection required
UNIX	Ethernet connection required
Home networking	Equipment such as Ethernet routers or wireless access points; for information, visit <a href="http://broadband.motorola.com/consumers/home_networking.asp">http://broadband.motorola.com/consumers/home_networking.asp</a>

## HIGHLIGHTS

- Easy to use and simple to set-up
- Front-panel, easy-to-read operational LEDs to indicate status and simplify trouble shooting
- User-friendly online diagnostics page
- Installation assistant program (CD-ROM) to enable self-install by the user
- Provides up to four times the downstream capacity of today's DOCSIS® 2.0 cable modems
- High-speed data access via 10/100/1000Base-T Ethernet (RJ-45) (Ethernet cable included)
- Remotely configurable and monitorable using SNMP and TFTP
- Supports DOCSIS 1.1 and 2.0 features as well as channel bonding
- Supports up to 63 computers on a single Internet connection (additional networking hardware is required)
- Compatible with Windows®, Macintosh®, and UNIX® computers

## BENEFITS

- Help protect your installed base of high-speed data customers
- Deliver high-bandwidth multimedia services to residential and other customers
- Deliver competitive, high-capacity commercial services to business customers

\* 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.

Specifications are subject to change without notice. This product has not yet received FCC approval.



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