

SURFBOARD DOCSIS BASED TWO-WAY EXTERNAL CABLE MODEM SPECIFICATIONS

MODEL SB3100

FEATURES	SB3100	SB3100i*	SB3100D
Interface to PC:	Ethernet 10BaseT	Ethernet 10BaseT	Ethernet 10BaseT
Data Protocol:	TCP/IP	TCP/IP	TCP/IP
Dimensions:	7.2"H x 2.8"W x 7.8"L	7.2"H x 2.8"W x 7.8"L	7.2"H x 2.8"W x 7.8"L
Power:	9 Watts		
Input Power:	90-250 VAC, 47/63 Hz	Operating Level Range:	+8 to +55 dBmV (16QAM) +8 to +58 dBmV (QPSK)
DOWNSTREAM			
Interface:	F-Connector	F-Connector	F-Connector
Modulation:	64 or 256 QAM	64 or 256 QAM	64 or 256 QAM
Maximum Data Rate:	38Mbps (into modem)	38Mbps (into modem)	38Mbps (in modem)
Bandwidth:	6 MHz	6 MHz	6 MHz
Symbol Rates (max.):	5,069 Msym/s (64 QAM) 5,361 Msym/s (256 QAM)	5,069 Msym/s (64 QAM) 5,361 Msym/s (256 QAM)	5,069 Msym/s (64 QAM) 5,361 Msym/s (256 QAM)
Operating Level Range:	-15 to +15 dBmV	-15 to +15 dBmV	-15 to +15 dBmV
Input Impedance:	75 Ω (nominal)	75 Ω (nominal)	75 Ω (nominal)
Total Input Power:	< 30 dBmV	< 30 dBmV	< 30 dBmV
Frequency Range:	88-860 MHz (30 kHz min. step size)	88-860 MHz (30 kHz min. step size)	88-860 MHz (30 kHz min. step size)
ENVIRONMENTAL			
Power:	9 Watts Nominal	9 Watts Nominal	9 Watts Nominal
Input Power:	100-240VAC, 50-60Hz	100-240VAC, 50-60Hz	100-240VAC, 50-60Hz
Operating Temperature:	0 to 40C	0 to 40C	0 to 40C
Storage Temperature:	-30 to +80C	-30 to +80C	-30 to +80C
Operating Humidity:	0 to 95% R.H. Non-Condensing	0 to 95% R.H. Non-Condensing	0 to 95% R.H. Non-Condensing
UPSTREAM			
Interface:	F-Connector	F-Connector	F-Connector
Upstream Modulation:	16 QAM or QPSK (variable symbol rates)	16 QAM or QPSK (variable symbol rates)	16 QAM or QPSK (variable symbol rates)
Maximum Data Rate:	10 Mbps	10 Mbps	10 Mbps
Bandwidth:	200-3200 kHz	200-3200 kHz	200-3200 kHz
Symbol Rates:	160, 320, 640, 1280, and 2560 ksym/s	160, 320, 640, 1280, and 2560 ksym/s	160, 320, 640, 1280, and 2560 ksym/s
Operating Level Range:	+8 to +55 dBmV(16QAM) +8 to +58 dBmV (QPSK)	+8 to +55 dBmV(16QAM) +8 to +58 dBmV (QPSK)	+8 to +55 dBmV (16QAM) +8 to +58 dBmV (QPSK)
Output Impedance:	75 Ω (nominal)	75 Ω (nominal)	75 Ω (nominal)
Total Input Power:	< 35 dBmV (varies by symbol rate)	< 35 dBmV (varies by symbol rate)	< 35 dBmV (varies by symbol rate)
Frequency Range:	5-42 MHz (edge to edge)	5-42 MHz (edge to edge)	5-42 MHz (edge to edge)
UPSTREAM—TELCO			
Interface:	N/A	N/A	RJ-11 connector
Protocol:			V42, V32, or V34
Maximum Upstream Transmission Rate:			33.6 kbps

*Internal power supply provides universal outlet functionality—all you need is a power cord.

CONCLUSION

GI has done it again. The SB3100—yet another superior innovation in the GI SURFboard cable modem family, offering high-performance processors, superior RF design, operator-friendly

diagnostics, and superior field reliability. The SURFboard SB3100 cable modem—21st Century Internet access... today,

GI General Instrument®

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SB3100/SB3100i/SB3100D



ADVANCED NETWORK & TELECOM SYSTEMS

Now you can ride the wave faster than ever before!

General Instrument has revolutionized the cable industry once again. Now accessing and surfing the Net is better than ever. Hold on tight, because the fastest connection to the Net is here. Introducing the newest member of the GI SURFboard family, the SB3100 cable modem—the most dynamic wave in external cable modem design yet. The SB3100 cable modem is hardware-ready to support the DOCSIS 1.1 specification standard, which calls for advanced Quality of Service (QoS) and Internet Protocol (IP) filtering functions. QoS guarantees increased Internet access speed to those businesses or homes demanding it... this translates into increased revenue potential for subscribers who require quicker connection. The enhanced processor included in the SB3100 is 5 times faster than its SB2100 counterpart, making it the fastest in the market and capable of handling current and future DOCSIS functions.



- 3 models available: SB3100, SB3100i international version, and the SB3100D dual mode
- Hardware ready for DOCSIS 1.1
- Attractive compact design (40% smaller casing than the SB2100)
- Improved LEDs for troubleshooting
- Power supply inside the enclosure (no power brick)
- Supports up to 32 users
- Ideal for retail
- Cost reduction enables better pricing



GI General Instrument®



Power

Flashes while performing startup diagnostics internal to modem (after initial power-on or reset), and turns solid green when modem successfully completes diagnostics.

Receive

Flashes while scanning for downstream frequency, and turns solid green when modem has successfully acquired a downstream channel.

Send

Flashes while locating and ranging an upstream channel, and turns solid green when modem successfully ranges upstream channel.

Online

Flashes while requesting an IP address (DHCP), downloading the configuration file (TFTP), and getting network time (TOD). Turns solid green when modem has successfully completed DHCP/TFTP/TOD and activities noted above for Power, Receive, and Send.

Activity

Flashes when data is transmitted on the downstream or upstream connection. If there is no data traffic, the amber LED remains dark.

“Improved, user-friendly LEDs increase troubleshooting by diagnosing potential and existing network problems.”

SAME FEATURES AS THE SB2100

- External cable modem with IOBaseT interface
- 64/256 QAM RF downstream receives data up to 38 Mbps
- 16 QAM/QPSK RF upstream provides data transfer up to 10 Mbps
- Remote management via SNMP
- Easy installation, automatic configuration
- Software upgradable over network
- Platform independent—compatible with all operating systems including Windows 95/98/NT, Macintosh and all UNIX variants

The Enhanced SB3100

- NEW!** Compact design is perfect for home and office
- NEW!** Enhanced LEDs offer user-friendly function names and easy-to-understand progression of lights
- NEW!** DOCSIS 1.1 functionality available with future software upgrade
- NEW!** Internal universal power supply means no more “power brick”—all you need is a power cord
- NEW!** Increased processing power—5x’s the speed of the SB2100

SB3100i Features

- Same features, casing, and logic board as SB3100
- Recognizes alternate power sources; all you need is a different line cord

SB3100D Features

- Same features, casing, and logic board as SB3100
- Includes 33.6 Kbps telco modem
- Detects whether plant is one-way or two-way and reconfigures appropriately
- Includes DHCP server for offline access to HTML pages using dynamic IP Addressing

THE ULTIMATE IN CABLE MODEM TECHNOLOGY!

GI listened to your needs and has developed the ultimate cable modem—the SB3100. The newly innovated SB3100 includes all of the features of the SB2100 including easy connection to desktop and laptop PCs, Macs, workstations and other computers. The SB3100 connects to any DOCSIS network for plug-and-play reliability. Always on. Always connected. It’s that easy.

But there’s more. The SB3100 features a web page user interface, attractive compact design, and lower cost...ideal for retail. The SB3100 incorporates full DOCSIS 1.0 functionality...today, and is fully upgradable for DOCSIS 1.1 with a software upgrade, making it the perfect cable modem for tomorrow! GI listens and responds...with the most innovative cable modem available.



The SB3100’s new and improved compact design makes it ideal for home or office use.