

# SURFboard™



## SB6190

### Cable Modem

#### Highlights:

- Advanced Services Ready
- 1 GHz-capable tuner
- Flexible DOCSIS 3.0 Channel Bonding of up to 32 Receive/Download and 8 Send / Upload channels capable of data rates up to 1 Gbps in the received data. Bonding of up to 8 channels for the send data capable of up to 240 Mbps.
- RF Immunity, built into Touchstone products since 2006, protects against potential service impacting interference
- MoCA reject filter ensures carefree interoperation of MoCA and DOCSIS networks
- Gigabit Ethernet port, with 802.3az Energy Efficient Ethernet
- External AC/DC Adapter for more compact product size
- Support for small and medium businesses supporting Business Services over DOCSIS (BSoD)
- Includes a downstream speed test for verification of service level speeds
- Front panel LEDs for easy troubleshooting
- ARRIS customer support via Web, chat, or phone.
- Qualified for use on all major cable operator systems



#### Product Overview

The SURFboard DOCSIS 3.0 32x8 Cable Modem SB6190 delivers a full Gigabit per second of raw speed, ushering in a new era of Internet access! The SB6190 is well-suited to the home user – offering the speeds to stream multimedia content to multiple devices and the responsiveness to keep you “in the game” for online gaming. However, the SB6190 is also a serious commercial solution, ready to meet the challenging demands of small business with its Business Services over DOCSIS (BSoD) support.

**GENERAL SPECIFICATIONS**

Physical	
Operating Temperature °F (°C)	32 to 104 (0 to 40)
Operating Relative Humidity (Min-Max)	5-95% (non-condensing)
Storage Temperature °F (°C)	-40 to 158 (-40 to 70)
Dimensions (H x W x D) in. (cm) <i>Excludes F-connector</i>	5 (h) x 2.1 (w) x 5 (l) in (127 x 51 x 127 mm)
Weight lbs (kg)	1.13 (0.51)
Diagnostic LEDs	Power, US/DS, Online, LAN

Interfaces	
RF Interface	External 75Ω 'F' type connector
Data Interface	10/100/1000 Base-T Ethernet RJ-45
Power Interface (nominal)	Power Adapter input = 115-240 VAC, 50/60 Hz Power Adapter output (to SB6190) = 12V/2A

RF Downstream	
Frequency Range (MHz)	88-1002 (edge-to-edge)
Bonded Channels	Up to 32
Tuner Configuration	Full capture tuning range
Modulation (QAM)	64 or 256
Data Rate (Mbps, Theoretical)	Up to 1000 (limited by GigE interface)
RF Input Sensitivity Level (dBmV)	-15 to +15
Carrier Bandwidth (MHz)	6
MoCA® Immunity Filter	Embedded



**SURFboard™**  
www.SURFboard.com

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**Note:** Specifications are subject to change without notice.

**GENERAL SPECIFICATIONS (continued)**

RF Upstream	
Frequency Range (MHz)	5-42
Bonded Channels	Up to 8
Modulation	QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM (S-CDMA only)
Modulation Bandwidth (kHz)	<b>TDMA:</b> 200, 400, 800, 1600, 3200, 6400 <b>S-CDMA:</b> 1600, 3200, 6400
Data Rate (Mbps, Theoretical)	Up to 240 <i>Max raw DOCSIS rate; actual throughput is less due to overhead, configuration, and RF conditions</i>
RF Output Level (dBmV-1 channel)	<b>TDMA:</b> +17-61 (QPSK); +17-58 (8QAM, 16QAM); +17-57 (32QAM, 64QAM) <b>S-CDMA:</b> +17 to +56 (all modulations) <b>Note1:</b> A-TDMA max output reduced 3dB when transmitting 2 channels (6dB when transmitting 3+ channels). Extended US power compensates at higher bonding levels to ensure max output does not drop below +54dBmV. <b>Note2:</b> S-CDMA max output reduced 3dB when transmitting 2 or more channels.
Automatic Level Adjust	Yes
Frequency Stability (kHz)	±5
Output Impedance (Ω)	75

Standards	
DOCSIS® 3.0 Certified	UL® 60950 / CB
FCC Part 15 Class B	RoHS / WEEE
IEEE 802.3, IEEE 802.3ab	

All features, functionality, and other product specifications are subject to change without notice or obligation.

**ORDERING INFORMATION**

Part #	Description
1000031	SB6190/NA, DOCSIS 3.0 CM, Ships in 32x8 Configuration, 115-240VAC 50/60Hz (external adapter), NA Power Cord, 1x GigE, No USB, RoHS

