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.

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
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### 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) 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

### RF SPECIFICATIONS (continued)

#### RF Upstream
- **Frequency Range (MHz)**: 5-42
- **Bonded Channels**: Up to 8
- **Modulation**: QPSK, 8QAM, 16QAM, 32QAM, 64QAM, 128QAM
- **Modulation Bandwidth (kHz)**: TDMA: 200, 400, 800, 1600, 3200, 6400; 5-CDMA: 1600, 3200, 6400
- **Data Rate (Mbps, Theoretical)**: Up to 240, Max raw DOCSIS rate: actual throughput is less due to overhead, configuration, and RF conditions
- **RF Output Level (dBmV–1 channel)**: TDMA: +17:61 (QPSK); +17:58 (8QAM, 16QAM); +17:57 (32QAM, 64QAM), 5-CDMA: +17 to +56 (all modulations)

**Note1**: 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.

**Note2**: 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

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1000031</td>
<td>S86190/NA, DOCSIS 3.0 CM, Ships in 32x8 Configuration, 115-240VAC 50/60Hz (external adapter), NA Power Cord, 1x GigE, No USB, RoHS</td>
</tr>
</tbody>
</table>

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