

## SBG8300

### DOCSIS 3.1 Consumer Series Wireless Cable Modem

#### FEATURES

- DOCSIS 3.1 and DOCSIS 3.0 capable
- DOCSIS 3.1 supports 10+ Gbps Download
- Multiple 4k, virtual reality, and HD video streams easily supported
- 2x2 OFDM and OFDMA DOCSIS® 3.1 channels
- 32x8 SC-QAM DOCSIS® 3.0 channels
- Full Capture Bandwidth Tuner
- Multi Processor Technology with ARM and ATOM based Application Processors
- 4 port Gigabit Ethernet Router
- 4x4 Integrated Dual Band Concurrent 5GHz 802.11ac Wave2 radios and 3x3 2.4GHz 802.11n for high performance WLAN
- Primary, secondary and guest SSIDs
- Designed for enhanced management via SURFboard Mobile Manager and Amazon Alexa voice commands



#### PRODUCT OVERVIEW

The SBG8300 Wireless Gateway, supporting DOCSIS 3.1 standards, allows unprecedented data rates to be delivered to cable subscribers. Designed to support Gigabit + services while also providing secure internet connections and powerful parental controls, the SBG8300 also offers superior Wi-Fi performance enabling fast and reliable home networking coverage using 802.11ac wave 2 technology.

This feature-packed unit is intended to serve as the hub of the home or small business network, connecting all IP capable devices (Internet, Data, and Streaming Video) throughout the premises.

## Product Highlights

### Easy to Setup and Use

- Plug-and-play installation, use the SURFboard Manager App on your mobile device for management (including remote management when you are away from home)
- Use Alexa voice commands via an Amazon Alexa enabled device 'Ask SURFboard' to manage your network.
- Default settings for recommended Security and Quality of Service protection supports standard Internet browser software
- Front panel status LEDs indicate connectivity and simplify troubleshooting.
- User-friendly online, mobile app, or Amazon Alexa based diagnostics and configuration

### Advanced Services Ready

- DOCSIS 3.1 Gigabit services ready supporting 2x 196 MHz OFDM and 2x 96 MHz OFDMA channels
- Channel bonding of up to thirty-two downstream and eight upstream channels in DOCSIS 3.0 mode
- Internet connectivity in the received (downstream) data stream of over 10 Gbps
- 108 -1002 MHz Full Capture Bandwidth Tuner
- Supports both IPv4 and IPv6
- Integrated 2.4 GHz 802.11n and 5 GHz 802.11ac Wi-Fi® access point, concurrent radio operation with 802.11ac wave two Multi-User MIMO support
- 3x3 and 4x4 MU-MIMO antenna arrays offer performance benefits for wireless LAN (WLAN) access points
- Powerful Wi-Fi® output added for optimized throughput over a greater range
- Four 1 Gb Ethernet ports enable flexible, high-speed connectivity with Auto Negotiate and Auto MDIX
- Support for Multicast IP services

### Reliable and Secure

- WPA/WPA2 Wi-Fi® security
- Supports AES traffic encryption

### Benefits

- Top of the line Cable Modem Wireless Access Point using 802.11ac wave 2 wireless technology, supporting 2350 Mbps throughput
- Supported by ARRIS's highly rated Consumer Support Team
- Supports Energy Efficient Ethernet on the 4x GigE ports

For information on additional  
SURFboard products please visit  
[www.SURFboard.com](http://www.SURFboard.com)

For product support please visit  
[www.arris.com/consumers](http://www.arris.com/consumers)

## SPECIFICATIONS

### Physical

Operating Temperature	0 to 50°C
Operating Relative Humidity	5-85% (Non condensing)
Storage Temperature	-40 to 70°C
Dimensions (H x W x D)	9.33in x 2.87in x 8in 237mm x 73mm x 205mm
Weight	1.94lbs 0.88kg
Diagnostic LED's (Front)	Integrated LED for status of Power, US/DS, Online, 2.4GHz, 5GHz,
Diagnostic LED's (Rear)	Ethernet Link/Speed

### RF Downstream

Bonded Channels	Up to 32 SC-QAM or 2 OFDM
Tuner Configuration	Full capture tuning range
Frequency Range (MHz)	108MHz - 1002MHz DOCSIS
Data Rate* (Mbps Max.)	Up to 4Gbps (limited by 4x Enet ports)
RF Input Sensitivity Level	-15dBmV to +15dBmV (DOCSIS)

### RF Upstream

Bonded Channels	Up to 8 SC-QAM or 2 OFDMA
Frequency Range	5MHz to 85MHz
Configurable Diplex Filter	42MHz-85MHz
Data Rate* (Mbps Max.)	Up to 1Gbps
RF Output Level	+65 dBmV (64 QAM, single upstream) +57 dBmV (64 QAM, 4-8 upstreams) +65 dBmV (16 QAM, single upstream)

\*Max raw DOCSIS rate; actual throughput is less due to overhead, configuration, and RF conditions. Max Rate may also be limited by service level from the ISP.

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**Note:** The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.



## SPECIFICATIONS

### Interfaces

RF Interface	1 External 'F' type connector
Date Interfaces (bridged)	4 x 10/100/1000 Base-T Ethernet (RJ-45 connector) MDI /MDI-X
Input Voltage (nominal)	12V DC
AC-DC	External

### Wireless

Frequency Range	Dual Band Concurrent 2.4GHz and 5GHz
Standard	802.11ac Wave 2
Wi-Fi throughput	AC2350
Transmit Power (from any antenna)	+27 dBm (MCS7) +26 dBm (MCS9)
Antenna: Spatial Streams	2.4GHz = 3x3:3 5GHz= 4x4:
Receive Levels	2.4GHz <-88dBm 802.11n (MCS0) , <-71dBm 802.11n (MCS7), HT20 5.0GHz <-84dBm 802.11ac (MCS0) , <-57dBm 802.11ac (MCS9), VHT80