

## SBG6950AC2

### DOCSIS 3.0 Consumer Series Wireless Cable Modem

#### FEATURES:

- 16 x 4 DOCSIS Channel Bonding for fast DOCSIS® 3.0 download speeds.
- Supported with ARRIS SURFboard Manager Mobile App for connection and management
- Multiple 4k and HD video streams easily supported
- Multi Processor Technology with a 1.2GHz Intel Atom Core Application Processor
- DOCSIS® 3.0 and PacketCable™ 2.0 compliant design
- 4 port Gigabit Ethernet Router with Wi-Fi®
- Integrated Multi-User MIMO Antennas, 3x3 arrays for both radio bands
- Bandsteering available for optimal radio connections
- Dual Band Concurrent Wi-Fi 2.4 GHz 802.11n and 5 GHz 802.11ac wave 2 High Power Radios with wireless throughput of up to 1,900 Mbps
- USB 2.0 Host Port with support for NAS Drive, Media Server, or other device connection
- WPS for quick client connection



#### PRODUCT OVERVIEW:

With High Speed Internet service up to 686 Mbps, the ARRIS SURFboard® SBG6950AC2 delivers speeds and performance to meet the new bandwidth services. With broad range, high power Wi-Fi capability; using dual band concurrently operating radios that support the technology of 802.11ac wave two, you have a complete home networking package. 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.

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## 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)
- Wi-Fi® pairing button for easy Wi-Fi Protected Setup™ (WPS) Wi-Fi connection
- Default settings for recommended Security and Quality of Service protection supports standard Internet browser software
- Front panel status LEDs indicate connectivity and simplify troubleshooting, include a management feature to disable them to limit room light saturation.
- User-friendly online or mobile app based diagnostics and configuration

### Advanced Services Ready

- DOCSIS 3.0
- Channel bonding of up to sixteen downstream and four upstream channels
- Internet connectivity in the received (downstream) data stream of over 686 Mbps and over 131 Mbps in the send (upstream) data stream
- 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
- MIMO antenna arrays offer performance benefits for wireless LAN (WLAN) access points
- Powerful High-gain 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
- USB 2.0 Host port with support for multiple file transfer protocols and a file structure that prevents harm to your transferring files from unexpected crashes.

### Reliable and Secure

- WPA/WPA2 Wi-Fi® security
- Enhanced security: supports AES traffic encryption

### Benefits

- Top of the line Cable Modem Wireless Access Point using 802.11ac wireless technology, supporting 1900 Mbps throughput
- Supported by ARRIS's highly rated Consumer Support Team

# SURFboard® SBG6950AC2



# Interface Speeds

Wi-Fi	1900Mbps
DOCSIS Downstream	640Mbps
USB2.0	480Mbps
DOCSIS Upstream	120Mbps

## SPECIFICATIONS

### Physical

Operating Temperature	0 to 50°C
Operating Relative Humidity	5-85% (Non condensing)
Storage Temperature	-40 to 70°C
Dimensions (H x D x W)	9.5" x 2.25" x 7.69
Weight	1.94lbs 0.88kg
Diagnostic LED's (Front)	Power, US/ DS, Online, 2.4GHz, 5GHz, WPS
Diagnostic LED's (Rear)	Ethernet Link/Speed

### RF Downstream

Bonded Channels	Up to 16 SC-QAM channels
Tuner Configuration	Full capture tuning range
Frequency Range (MHz)	108MHz - 1002MHz DOCSIS
Data Rate* (Mbps Max.)	Up to 640Mbps
RF Input Sensitivity Level	-15dBmV to +15dBmV (DOCSIS)

### RF Upstream

Bonded Channels	Up to 4 SC-QAM channels
Frequency Range	5MHz to 42 MHz
Data Rate* (Mbps Max.)	Up to 120Mbps
RF Output Level	+57 dBmV(64QAM, single upstream) +54 dBmV(64QAM, 4-8 upstream) +58 dBmV(16QAM, single upstream) +56 dBmV(SCDMA, single upstream)

## SPECIFICATIONS

### Interfaces

RF Interface	1 External 'F' type connector
Data Interfaces (bridged)	4 x 10/100/1000 Base-T Ethernet (RJ-45 connector) MDI /MDI-X
USB 2.0, powered	DLNA, NAS, Printers, Media Servers
Input Voltage (nominal)	12V DC
AC-DC	External

### Wireless

Frequency Range	2GHz: 2412MHZ – 2483.5MHZ 5GHz: 5170MHZ – 5250MHZ and 5735MHZ – 5835MHZ
Spatial Streams	2.4GHz:2, combined TX power < 30 dBm 5GHz:3, combined TX power < 30 dBm
Wireless	802.11ac wave 2 AC1900
Antennas	2.4 GHz 2x2 5 GHz 3x3

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

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)

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