

## SBX-AC1200P/SBX-1000P

### RipCurrent™ Enabled Network Extenders

#### Features:

- Includes embedded SURFboard RipCurrent to use your existing power lines in any room as a network connection
- Internet Access information at your fingertips anywhere you have a client
- Extend your wired network for secure, steady connections that off-load your Wi-Fi traffic
- Extend your Wireless network (SBX-AC1200P) to eliminate poor reception areas
- Video streaming multiple sources to multiple screens without aggravating delays
- Gaming from remote wired connection, how good does that get...
- Connect your phones to Wi-Fi for faster downloads
- Place and View security cameras from anywhere in the home
- Access Facebook from your patio with Gigabit Home Networking
- Tweet over Wi-Fi from the garage, saving on those 4G data charges
- Automatically connect to the right radio for the device's capability, no Wi-Fi slow down due to older technology connections
- Set up additional, isolated, networks for your guests (OK, we mean your kids' friends) to use.
- To access our technology product offerings go here:  
[www.SURFboard.com](http://www.SURFboard.com)

#### Product Overviews

The SURFboard RipCurrent Extenders provide options to expand your network like never before.

Add a wired network connection to any room in the house to support secure, uninterrupted Internet access.

- RipCurrent uses G.hn Power Line Communications Technology, as specified by the HomeGrid Forum<sup>SM</sup>. All SURFboard RipCurrent devices are HomeGrid<sup>TM</sup> Certified.
- Add Wi-Fi Extenders to provide wireless coverage through out the house, setting up your own HOTSPOTS within your home or small business.



SBX-AC1200P  
RipCurrent Enabled Network Wi-Fi Extender



SBX-1000P  
RipCurrent Enabled Network Wired Extender

- Each Extender mounts in any AC outlet in the home for optimal placement to access all your connected devices. The adapters have a Gigabit Ethernet port to connect you PCs, gaming systems, etc. In addition, the SBX-AC1200P includes dual-band concurrent Wi-Fi radios, one 802.11ac for the 5 GHz band and 802.11n for the 2.4 GHz band. Each radio includes 2x2 MIMO antenna arrays for excellent reach, range, and throughput.
- RipCurrent Gigabit Home Networking via power lines, ready to connect to up to 16 extenders to reliably take your network to the farthest reaches of your environment.

The SBX-AC1200P can also be set up as an Access Point / Router ready to establish or improve your home or business network.

### **Connecting your RipCurrent Extenders is Quick and Easy.**

- Plug in RipCurrent Gigabit Home Network extenders at any AC outlet, no new wires needed. More outlets in the home and outlets in every room for flexible placement of extenders.
- Once connected to the same home AC power grid as another RipCurrent enabled, or other G.hn capable device, the extenders will automatically communicate with each other.
- Use the simple G.hn Pairing button to add security to the power line communication network.

### **Wi-Fi Extender.**

- Wi-Fi configuration data is automatically configured on the SBX-AC1200P if it connects to a RipCurrent enabled SURFboard Router.
- RipCurrent Extenders are easily managed by a Web based User Interface directly connected to the Extenders, or via a RipCurrent Router Web Management Interface.
- Never worry about antenna adjustment again. SURFboard antennas are internal to the device, with optimized orientation for MIMO arrays. The internal design removes the potential for antenna breakage.
- Use the QR code on the bottom of the unit for Wi-Fi Quick Connect of your Android or Apple devices.
- Use the WPS button on rear of the unit for Wi-Fi connections to WPS enabled devices.
- Use the SURFboard defaults for recommended settings, or customize your advanced settings to your desired configuration.

## RipCurrent Gigabit Home Networking (G.hn)

The RipCurrent Extenders connect to the home AC power grid via the power cable connected to a second RipCurrent or G.hn enabled device. G.hn is an ITU Specification managed by the HomeGrid Forum (for more information on the technology see [www.homegridforum.org/](http://www.homegridforum.org/)). Using this technology the extenders can distribute all data to each of the home's AC power outlets. Your Home or Small Business network can be extended to any room, including basements, garages, far reaching bedrooms, even outdoor living spaces (units placed on the interior of outside walls). Connect entertainment devices, security cameras, gaming consoles, managed appliance, anything that uses IP (Internet Protocol).

The G.hn technology is more robust than previous home plug implementations, this robustness translates into better 'real world' throughput and stability. G.hn also proves much more efficient in an environment with multiple power line networks (apartment buildings, office buildings, etc.) with the capability of recognizing up to 250 other networks to avoid interference. G.hn communications are encrypted using the advanced standard AES 128-bit encryption for secure transmissions.

More electronic devices will be incorporating G.hn into their home networking capability, allowing direct connect to the power line Internet Access through the RipCurrent Extenders and Routers, without the need for an additional adapter. These devices include TVs, refrigerators, electric car chargers, water heaters, and other manageable electronics.

### FEATURES

- Works with Cable, DSL, and Satellite Internet High Speed Data Services using a Gigabit Ethernet WAN input for direct connection to your modem.
- 5 Consumer support on-line, phone, or email
- One Gigabit Ethernet port
- Embedded G.hn power line communications
- Easy Web based software upgrades
- Wi-Fi Specific Internal antenna arrays
- Status LEDs
- Wi-Fi Specific WPS Wi-Fi pairing button
- G.hn pairing button
- Energy efficient Ethernet
- HTML management interface



SBX-AC1200P / SBX-1000P  
RipCurrent Enabled Network Extenders  
Bottom View

### SBX-AC1200P GENERAL SPECIFICATIONS

Wireless	
5 GHz	802.11b/g/n/ac
2.4 GHz	802.11n to 802.11b/g/n/
Radio Controls	Mode, bandwidth select, channel select, enable/disable Each radio employs a 2 x 2 MIMO antenna array (2 transmit / 2 receive antennas per radio)
SSIDs	4 per radio
SSID Controls	Enable/disable, name, broadcast, security, Radius, WMM
Antennas	2 Transmit and 2 Receive per band (all internal)
Number of SSIDs Supported	4 per band (1 public and 3 private)
Number of Guest SSIDs Supported	4 per band
Max Wi-Fi throughput	1200 Mbps
Wi-Fi Security Modes	WPA2, WPA/WPA2, WPA2-Enterprise
Router - Option to set in Router Mode	
VPN Tunneling Pass-through	IPSEC, PPTP
IPv4 and IPv6 DHCP	Address pool (per subnet)
DNS Server	Primary and secondary
DDNS	
Firewall	
NAT	
Advanced Traffic Mechanisms	WAN blocking, multicast, UPnP-IDG,
ALG Support	FTP, IRC, PPTP, SIP,
Protection	Port scan, IP flood, enable/disable
Port Forwarding	Start/End, destination IP address, static IP addresses
DMZ Host	Via IP address
G.hn PLC	
G.hn	ITU-T G.hn baseband plans for 25.50, and 100 MHz + MIMO
G.hn Max Throughput	1 Gbps
Encryption	AES 128-bit
Modulation	OFDM, FEC
Max G.hn Nodes	16
Network Awareness	250 domains

### SBX-AC1200P GENERAL SPECIFICATIONS (continued)

Certifications	
RSS-210, RSS-GEN Issue 2	6/1/2007
EnergyStar 1.0	SNE
Wi-Fi Alliance – 802.11a/b/g/n/ac	Wi-Fi Alliance – 802.11a/b/g/n/ac
Wi-Fi Alliance	WPS version 2.0.1
FCC Part 15 Classes B, C, and E	FCC Part 15 Classes B, C, and E
UL® 60950 / cUL / CSA	UL® 60950 / cUL / CSA
Industry Canada ICES-003	Industry Canada ICES-003
HomeGrid G.hn PLC	HomeGrid G.hn PLC
Physical	
Enclosure	White
Unit Size	119mm X 119mm X 58mm (without AC prongs)
1-port Ethernet	GigE, LAN
WPS Button	G.hn pairing
Reset Button	Recessed, bottom panel
Primary LED	Front panel: power, operation mode, WPS pairing
Secondary LEDs	Side Panel: G.hn active and status, Wi-Fi Bottom Panel: Wired LAN connection
Operating Temperature	32 °F to 104 °F (0°C to 40°C)
Operating Relative Humidity	5-90% (non-condensing)
Storage Temperature	-4 °F to 158°F (-20 °C to 70°C)
Unit Weight in ozs (g)	9.4 ozs (266.4g)
Local Area Network (LAN)	One 10/100/1000 Base-T Ethernet RJ-45, Gray, auto-sensing, auto-mdix
Wi-Fi Network	Dual-Band concurrent, 802.11ac, 2x2 MIMO
Input voltage	100VAC ~ 240VAC 50Hz/60Hz
Interfaces	
User buttons	Combined Pairing Button on bottom for WPS (>5 sec) and G.hn (<5 sec) Reset (press reset or hold 10sec factory restore)
User Management	
URL based	
Accessories In the Box	
Cat5e Ethernet cable	LAN cable
Quick Start Guide	
Warranty and License document	

### SBX-1000P GENERAL SPECIFICATIONS

#### Router

VPN Tunneling Pass-through	IPSEC, PPTP
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#### G.hn PLC

G.hn	ITU-T G.hn baseband plans for 25.50, and 100 MHz + MIMO
G.hn Max Throughput	1 Gbps
Encryption	AES 128-bit
Modulation	OFDM, FEC
Max G.hn Nodes	16
Network Awareness	250 domains

#### Certifications

FCC	Part 15B and 15C
UL/C-UL	UL60950
ICES-003	2/1/2004
RSS-210, RSS-GEN Issue 2	6/1/2007
EnergyStar 1.0	SNE
UPnP	
DLNA	
Wi-Fi Alliance – 802.11a/b/g/n/ac	EISA-2007
Wi-Fi Alliance	WPS version 2.0.1
FCC Part 15 Classes B, C, and E	RoHS / WEEE
UL® 60950 / cUL / CSA	IEEE 802.3, 802.3ab
Industry Canada ICES-003	WPS 2.0
HomeGrid G.hn PLC	

### SBX-1000P GENERAL SPECIFICATIONS (continued)

#### Physical

Enclosure	White
Unit Size	99mm X 99mm X 46mm (without AC prongs)
1-port Ethernet	GigE, LAN
Reset Button	Recessed, rear panel
Primary LED	Front panel: power, operation mode, WPS pairing
Secondary LEDs	Side Panel: G.hn active and status Bottom Panel: Wired LAN connection
Operating Temperature	32 °F to 104 °F (0°C to 40°C)
Operating Relative Humidity	5-90% (non-condensing)
Storage Temperature	-4 °F to 158°F (-20 °C to 70°C)
Unit Weight in ozs (g)	5.2 ozs (147.4g)
Local Area Network (LAN)	One 10/100/1000 Base-T Ethernet RJ-45, Gray, auto-sensing, auto-mdix
Input voltage	100VAC ~ 240VAC 50Hz/60Hz

#### Interfaces

User buttons	Combined Paring Button on bottom for WPS (>5 sec) and G.hn (<5 sec) Reset (press reset or hold 10sec factory restore)
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#### User Management

URL based

#### Accessories In the Box

Cat5e Ethernet cable	LAN cable
Quick Start Guide	
Warranty and License document	



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**RipCurrent™**

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