

# First Commercial 802.11ah (HaLow) Ethernet to Wireless Bridge

## BR-100AH

### Easily Connect your Ethernet Devices to an 802.11ah Network



BR-100AH is the first commercially available bridge supporting IEEE's 802.11ah wireless standard which is a long-range technology which enables any Ethernet device to become an 802.11ah wireless network device, giving the freedom to place it anywhere in your facility. BR-100AH is all that you need to incorporate your device into your 802.11ah (HaLow) network. A benefit of 802.11ah is extended range, making it useful for long distance and rural communications.

#### Features:

##### 1 Wireless Bridge Function

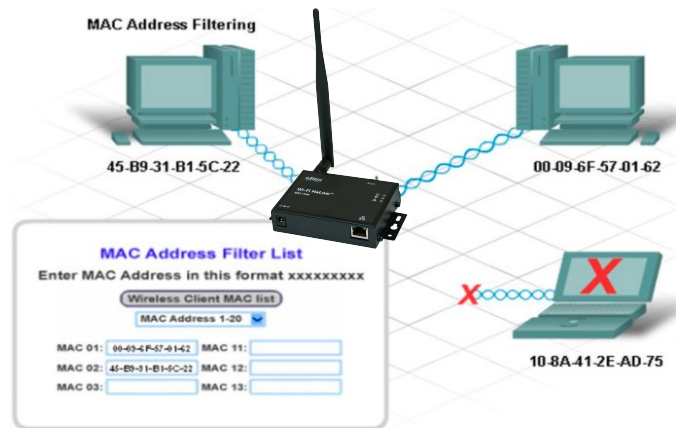
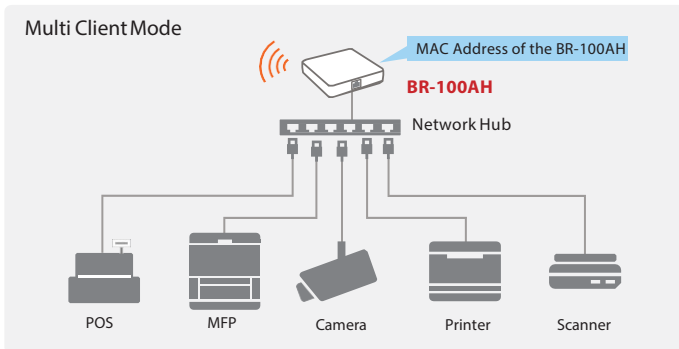
The BR-100AH allows any Ethernet enabled device to join a secure, highspeed 802.11ah enterprise WLAN network. It is software transparent meaning no changes to drivers, management tools, or applications are needed.

The BR-100AH operates in Multi client mode. It can connect multiple devices, which are connected to a wired LAN port using HUB, to a wireless LAN environment.

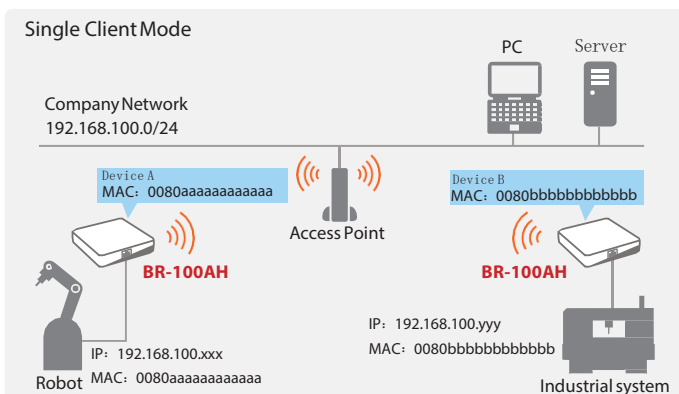
**Multi-client mode** has economical advantages, since up to 16 devices can be joined in a wireless environment via a single BR-100AH and an optional network hub.

##### 1 MAC Address Filtering

The BR-100AH supports MAC address filtering, or hardware address filtering. You can secure your home network using MAC addresses, unique identifiers found on every device. When you enable MAC address filtering, only devices that you've enabled can be paired with the bridge and thus the network. It helps secure your devices and your network.



**Single client mode** is typically used when you want to use a separate bridge for each ethernet device. It can be emulated by entering one MAC address to the MAC filter list.



##### 1 Wi-Fi Certified WPA3™

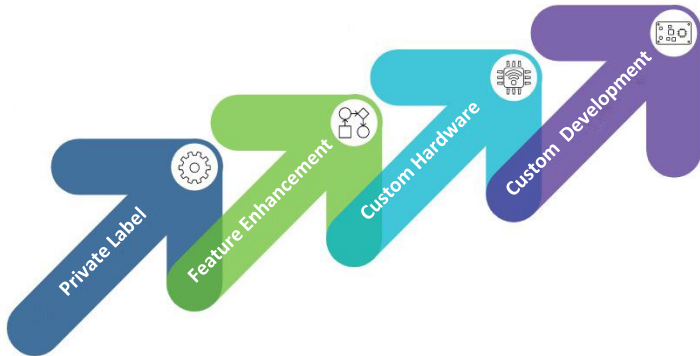
WPA3™ is the next generation of Wi-Fi security and provides cutting-edge security protocols to the market. Building on the widespread success and adoption of Wi-Fi CERTIFIED WPA2™, WPA3 adds new features to simplify Wi-Fi security, enable more robust authentication, deliver increased cryptographic strength for highly sensitive data markets, and maintain resiliency of mission critical networks. All WPA3 networks:



- Use the latest security methods
- Disallow outdated legacy protocols
- Require use of Protected Management Frames (PMF)

## Customization for OEM's:

Even though we incorporate our proprietary technologies and "know-how" in our standard products which we often refer as showcase products, our real value to our customers is our ability to customize our showcase products for hardware, software, technologies and features to meet your unique requirements.

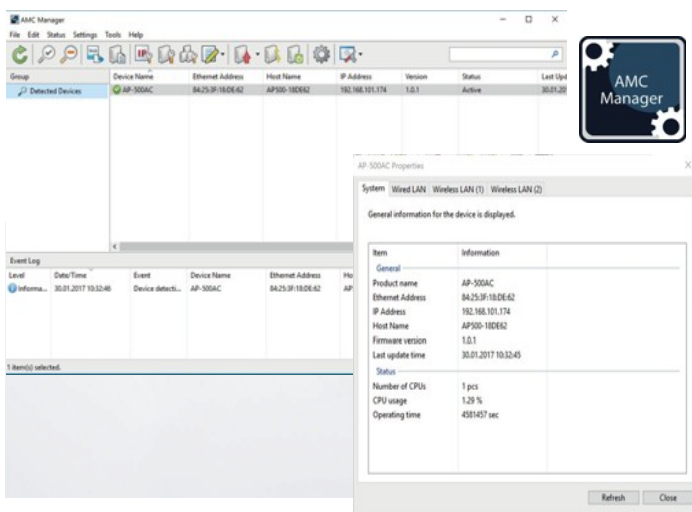


<p>01</p> <ul style="list-style-type: none"> <li>- Product Name</li> <li>- Enclosure</li> <li>- Packaging</li> <li>- Software GUI</li> </ul>	<p>02</p> <ul style="list-style-type: none"> <li>- Device Interface</li> <li>- Application</li> <li>- OS and Drivers</li> <li>- Security</li> <li>- Middleware</li> </ul>	<p>03</p> <ul style="list-style-type: none"> <li>- CPU / MCU</li> <li>- PCB Size</li> <li>- Wi-Fi Specification</li> <li>- LTE Specification</li> <li>- Temperature Spec</li> </ul>	<p>04</p> <ul style="list-style-type: none"> <li>- Custom design w/ Silex hardware</li> <li>- Custom proposal &amp; development to meet requirement</li> </ul>
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## AMC Manager Support

The BR-100AH wireless bridge is compatible with the optional device management software "AMC Manager®".

With this software, network administrators can execute the functions required for device management of Silex networking products from one point, for example monitor device status, configuration settings, update firmware, automatically record device operating logs and restart the devices.



## Product Specifications

### Wired LAN

Interface	<b>Ethernet:</b> RJ-45 Connector x 1 <b>Serial</b> (Option to add): RS232c x 1 RS422 x 1
Specification	10Base-T / 100Base-TX

### Wireless LAN

Specification	802.11ah (1x1)
Channels	1 MHz, 2 MHz & 4 MHz

Operating Frequency	<b>BW1MHz:</b> 903.5, 904.5, 905.5, 906.5, 907.5, 908.5, 909.5, 910.5, 911.5, 912.5, 913.5, 914.5, 915.5, 916.5, 917.5, 918.5, 919.5, 920.5, 921.5, 922.5, 923.5, 924.5, 925.5, 926.5 <b>BW2MHz:</b> 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925 <b>BW4MHz:</b> 910, 914, 918, 922
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Security	Open, Enhanced Open, WPA3-Personal Encryption: AES-CCMP
Data Rate	MCS 0, 1, 2, 3, 4, 5, 6, 7, 10
Range	3km
Modulation	OFDM

### Maximum Number of Clients

Bridge Multi Mode	<b>BR-100AH:</b> 16 stations simultaneously
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### Environmental Specifications

Storage	-20°C ~ 80°C / 20%RH ~ 90%RH
Operating	0°C ~ 40°C / 20%RH ~ 90%RH

### Other Specifications

Device Configuration	AMC Manager
Power	5.0V ± 5% DC Jack (EIAJ Class2) DSUB 9Pin(option) or 24V(option)
Dimensions	126mm x 75mm x 24mm
EMC Standards	FCC Part15 SubPart B Class B ICES-003 Class B EU's RoHS directive (2015/863) China RoHS directive
Warranty	5 years

## 802.11ah Wireless Access Point AP-100AH



AP-100AH is the first commercially available access point supporting IEEE's 802.11ah wireless standard which is a long-range technology where a single access point can give you range up to 3 kilometers supporting up to 675 clients. The AP-100AH and BR-100AH is all that you need to incorporate 802.11ah into your existing or new infrastructure.

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