BEC 8900AX

Ultimum®

Triple WAN Gateway with 2400Mbps Wireless-AC

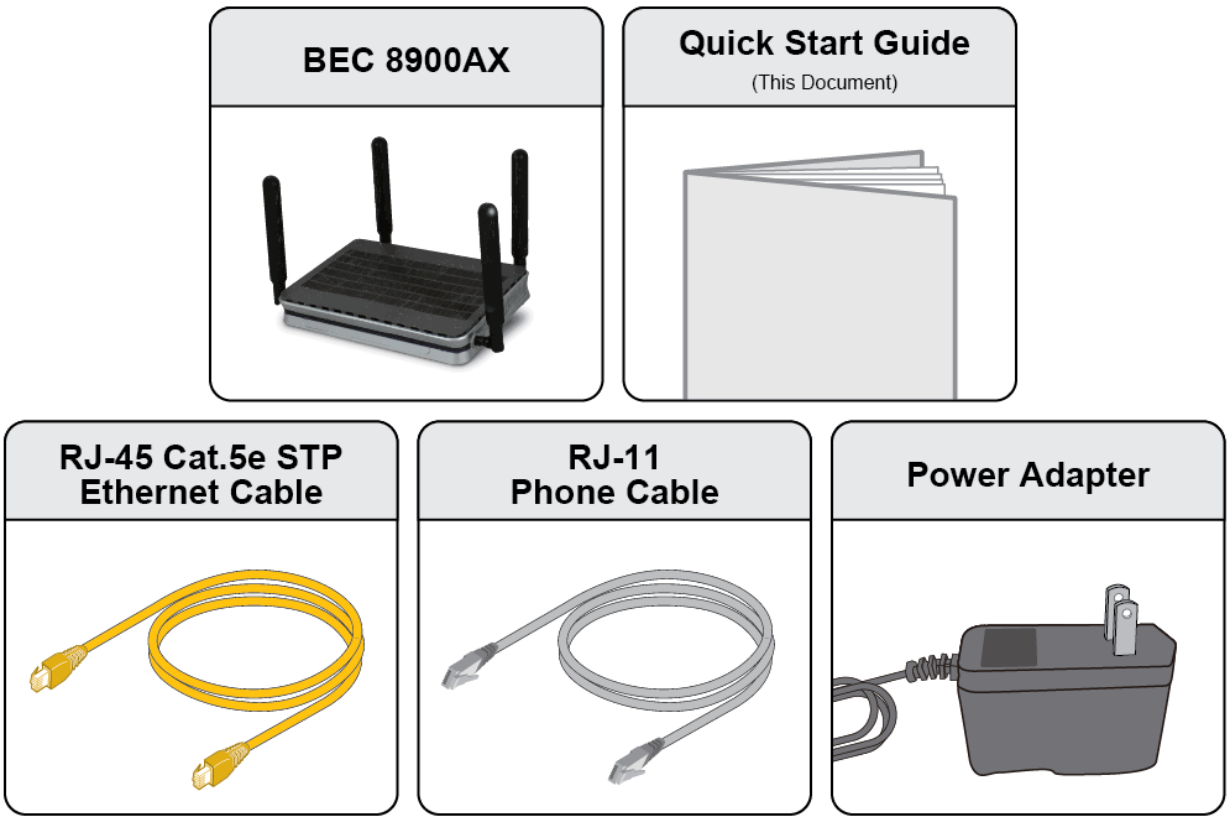
VDSL2 / ADSL2+ / FTTH

Quick Start Guide

PLEASE READ THE QUICK START GUIDE AND FOLLOW THE STEPS CAREFULLY. THIS QUICK START GUIDE WILL HELP YOU INSTALL THE DEVICE PROPERLY AND AVOID IMPROPER USAGE. IF YOU NEED MORE INFORMATION ON THIS SOFTWARE CONFIGURATION, PLEASE REFER TO THE ONLINE USER MANUAL.

Package Contents

- ✓ BEC 8900AX The Triple WAN Gateway (including 4 antennas and a stand) * 1
- ✓ This Quick Installation Guide * 1
- ✓ RJ-45 STP Ethernet Cable * 1
- ✓ RJ-11 Phone Cable * 1
- ✓ DC Power Adapter * 1



NOTE: ALL IMAGES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY.
PACKAGE CONTENTS MAY DIFFER FROM ACTUAL PRODUCTS.

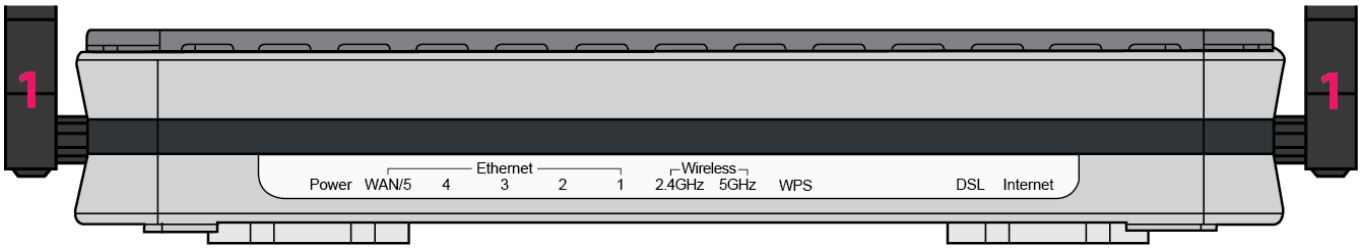
Warning

- **Do not** use the router in high humidity or high temperatures.
- **Do not** place the router next to high-temperature appliance, e.g. a heater or stove, or cover it up with tablecloths, curtain, etc.
- **Do not** use the same power source for the router as other equipment.
- **Do not** open or repair the case yourself. If the router is too hot, turn off the power immediately and have it repaired at a qualified service center.
- **Avoid** using this product and all other accessories outdoors.

Attention

- Place the router on a stable surface.
- Only use the power adapter that comes with the package. Using a different voltage rating power adapter may damage the router.

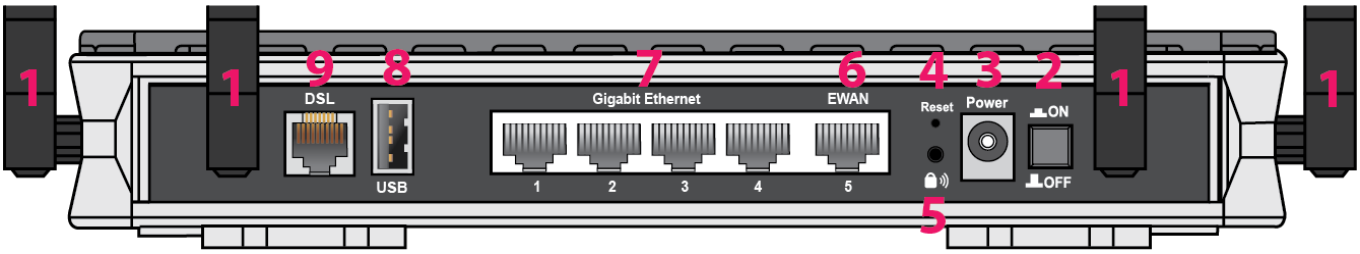
Front Panel LEDs



PORT		MEANING
1	**Wi-Fi Antennas**	There is a total of 4 fixed dual-band Wi-Fi antennas, 2 in front and 2 in the back.

LED	STATUS	DESCRIPTION
PWR (Power)	Red	System failure or in emergency mode
	Green	System is up and ready
	Off	Device has no power.
Gigabit EWAN / ETH 5 (Ethernet)	**Can be configured to be WAN port for broadband connectivity**	
	Green	**Ethernet LAN**: Connected to a Gigabit (1000Mbps) Ethernet device **Ethernet WAN**: Successfully connected with a broadband connection device
	Orange	LAN port is connected to a 10/100Mbps Ethernet device
	Blinking	Data being transmitted/received
	Off	No device is connected to the Ethernet port
Gigabit ETH 1~4 (Ethernet)	Green	LAN port is connected to an 1000Mbps Ethernet device
	Orange	LAN port is connected to a 10/100Mbps Ethernet device
	Blinking	Data being transmitted/received
	Off	No device is connected to the Ethernet port
Wireless 2.4GHz / 5GHz	Green	Wireless connection established
	Blinking	Data being transmitted / received
	Off	Wireless being turned off
WPS	Green	Wireless device(s) being connected successfully via WPS mode
	Blinking	WPS is enabled and trying to establish a WPS connection.
	Off	WPS being turned off
DSL	Green	Successfully connected to an ADSL DSLAM (Line Synced).
	Off	DSL cable is unplugged
Internet	Green	Obtained an IP address; traffic is passing thru the device
	Blinking	Data being transmitted / received
	Red	8900AX is unable to get a public (WAN) IP address
	Off	8900AX is either in bridged mode or WAN (DSL) connection is not ready

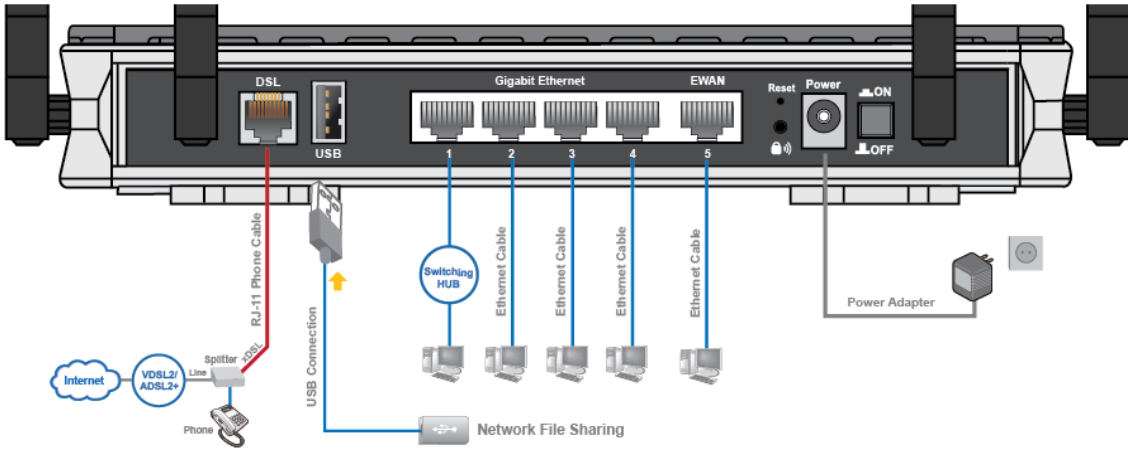
Rear Panel Connectors



PORT	MEANING
1. **Wi-Fi Antennas**	There is a total of 4 fixed dual-band Wi-Fi antennas
2. **Power ON/OFF**	Power ON/OFF switch
3. **PWR (Power)**	Connect the supplied Power Adapter to this port.
4. **Reset**	Push and hold the reset button for five (5) seconds to restore to its factory default settings (this is used when you cannot login to the router, e.g. forgot your password)
5. **WPS & Wi-Fi On/Off**	By controlling the pressing time, users can achieve two different effects: **(1) WPS*: ** Press &hold the button for **2 seconds** to trigger WPS function. **(2) Wireless ON/OFF button**: Press & hold the button for **more than 6 seconds** to on or off the wireless. *** For WPS configuration, please refer to the WPS section in the User Manual.**
6. **GbE EWAN**	Connect to Fiber/ Cable/ xDSL Modem with a RJ-45 cable, for broadband connectivity. **Note: LAN 5 automatically becomes an EWAN port when EWAN internet interface is being selected in the GUI**
7. **GbE LAN Ethernet (1 - 4)**	Connect to PCs, laptops, or any other office/home LAN devices with the supplied RJ-45 Ethernet cable (Cat-5 or Cat-5e) to any of the LAN ports.
8. **USB**	Connect to a 3G or 4G/LTE USB adapter/dongle for mobile connectivity or USB hard drive for storage/file sharing.
9. **DSL**	Connect the device to an ADSL/VDSL telephone jack or splitter using a RJ-11 telephone cable

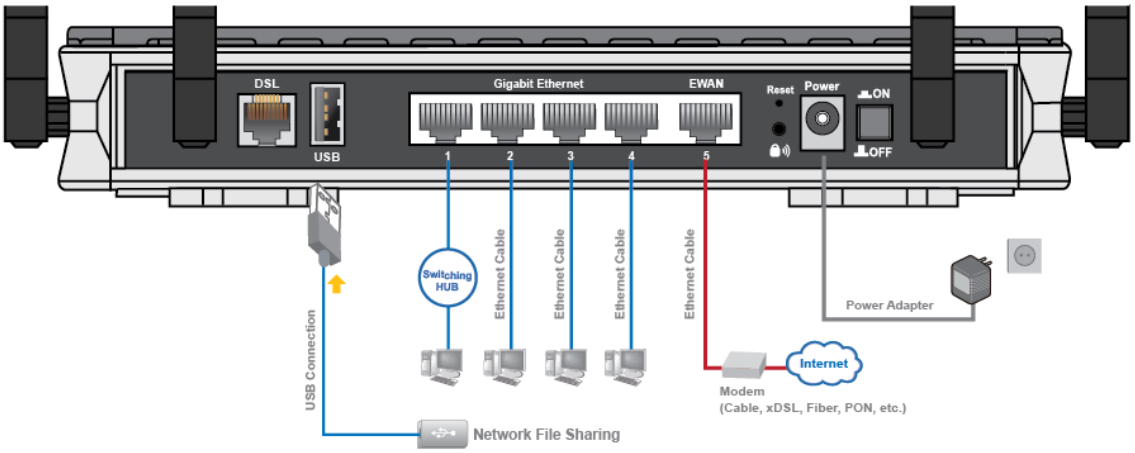
Hardware Connection

ADSL or VSDL Internet Connection



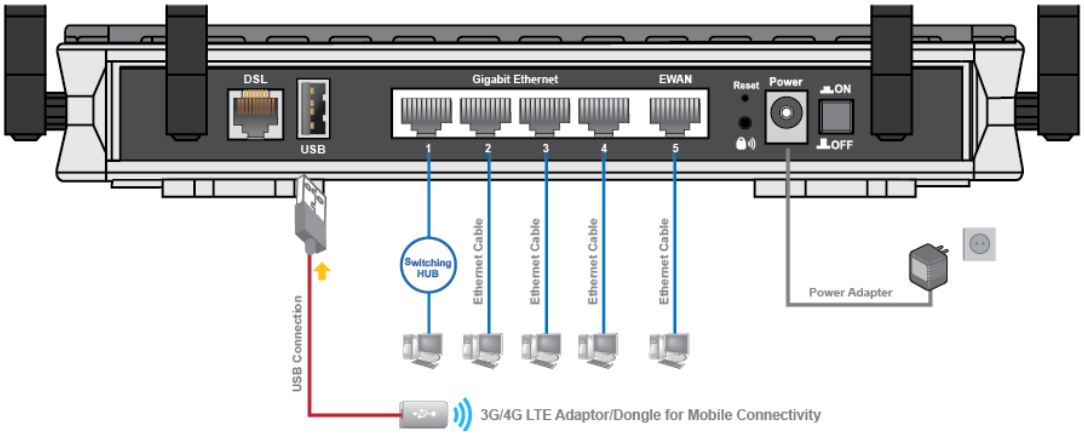
FTTH / Broadband Internet Connection

The Ethernet 5 is an interchangeable LAN/WAN port. Refer to the User Manual to change this port to EWAN interface to connect with your Fiber, Cable, or xDSL modem.



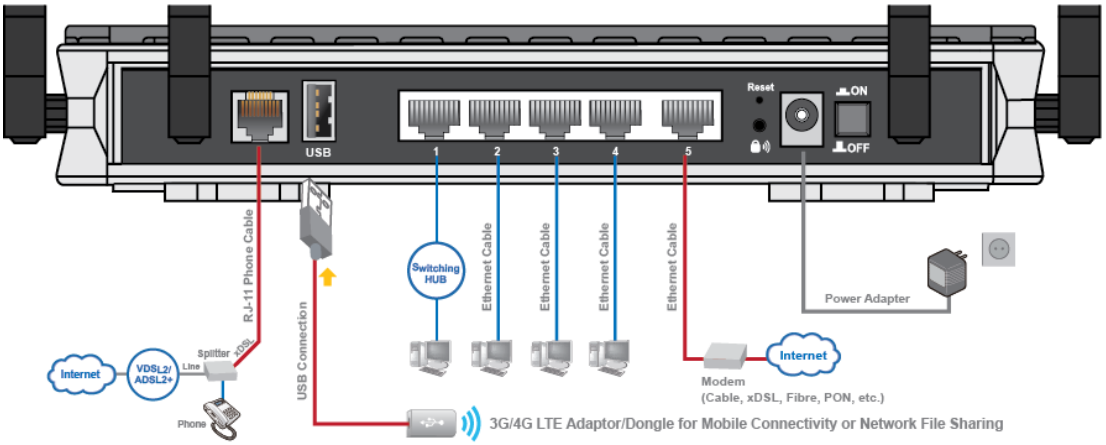
Mobile USB Internet Connection

Compatible with specific USB mobile modems. Please consult with BEC Support for more information.



Automatic WAN Failover

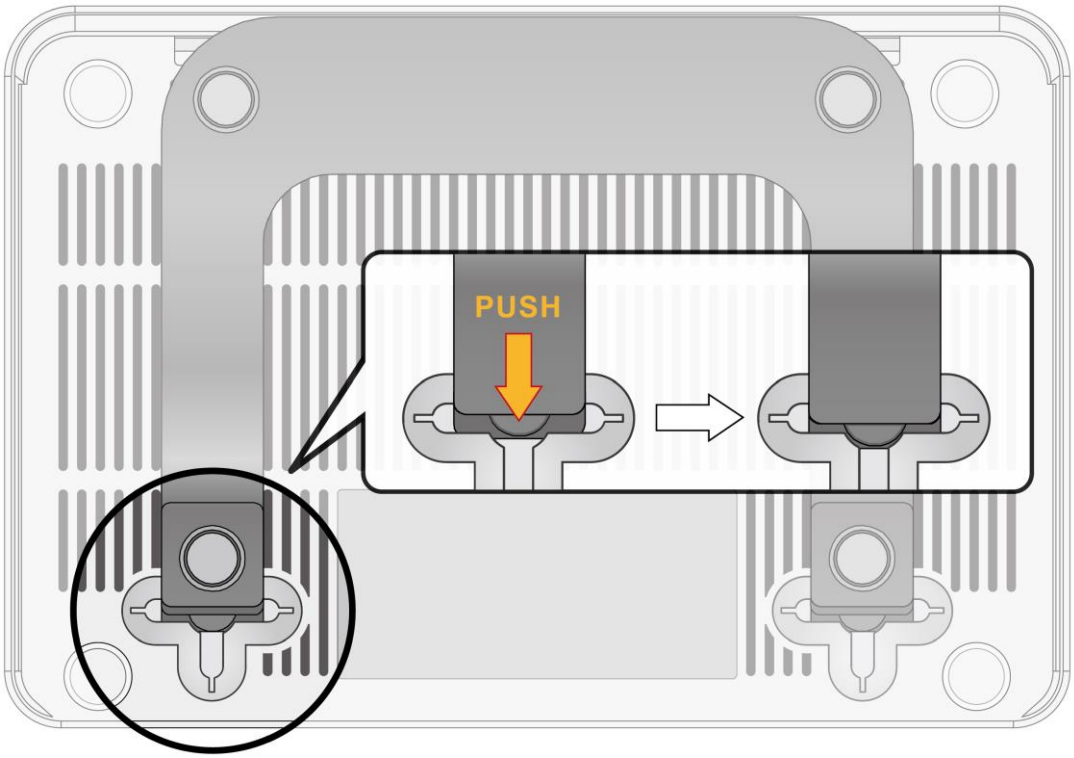
The automatic failover, between two (2) WAN interfaces, ensures uninterrupted operation and 24/7 Internet availability. When Primary WAN connection fails, the Secondary connection will back up the Internet connection seamlessly. Available WAN interfaces are ADSL/VDSL **/** EWAN **/** Mobile USB Modem.



Hardware Installation

1. Attach the Stand to the 8900AX

In case the horizontal stand is detached from the 8900AX, place the 8900AX on a level surface then push the stand to attach to the wall anchors on the button of the casing.



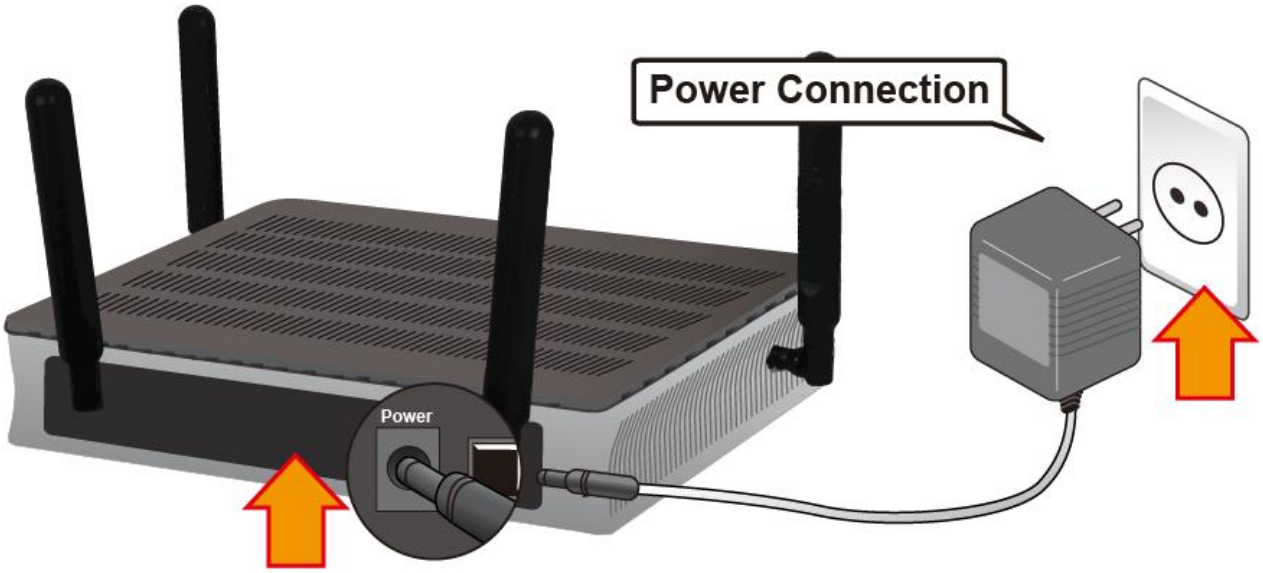
2. Antenna Adjustment

Adjust the orientation of the antennas to get the best reception and improve signal strength.

Recommend adjusting the antennas, near the LED panel, by 30-degree angle first.

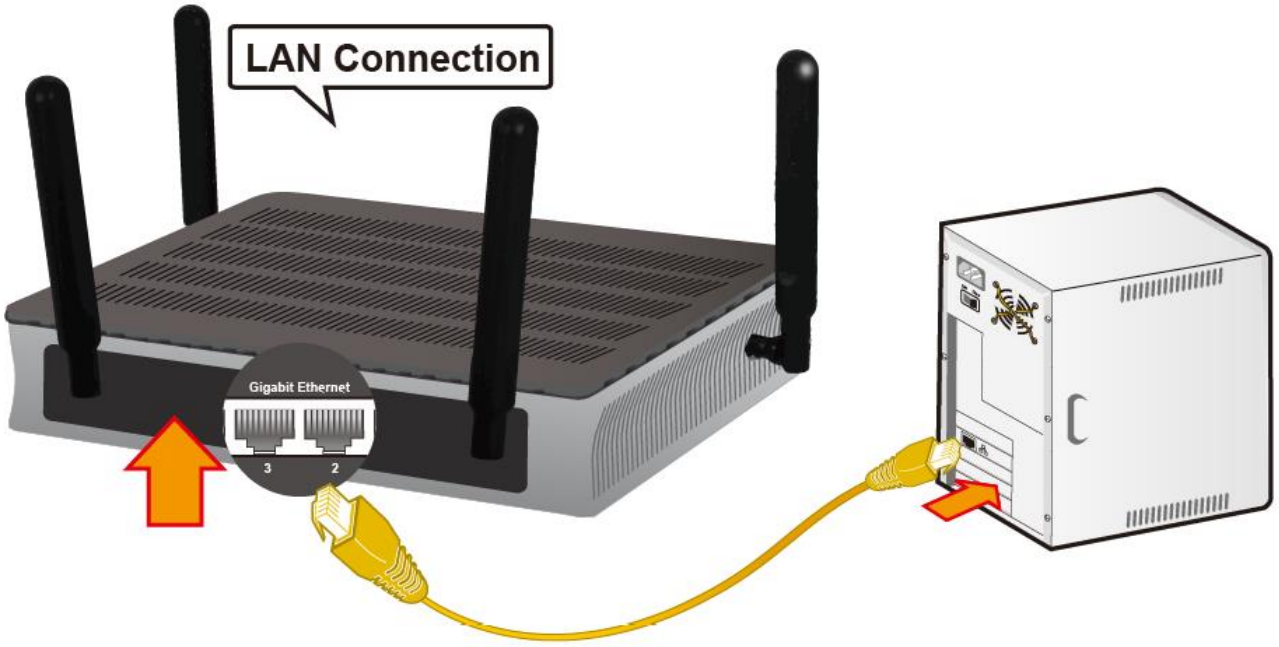
3. Power Connection

Plug in the supplied power adapter to the wall jack, the other side to the 8900AX then power **ON** the 8900AX by pressing the Power On/Off button.



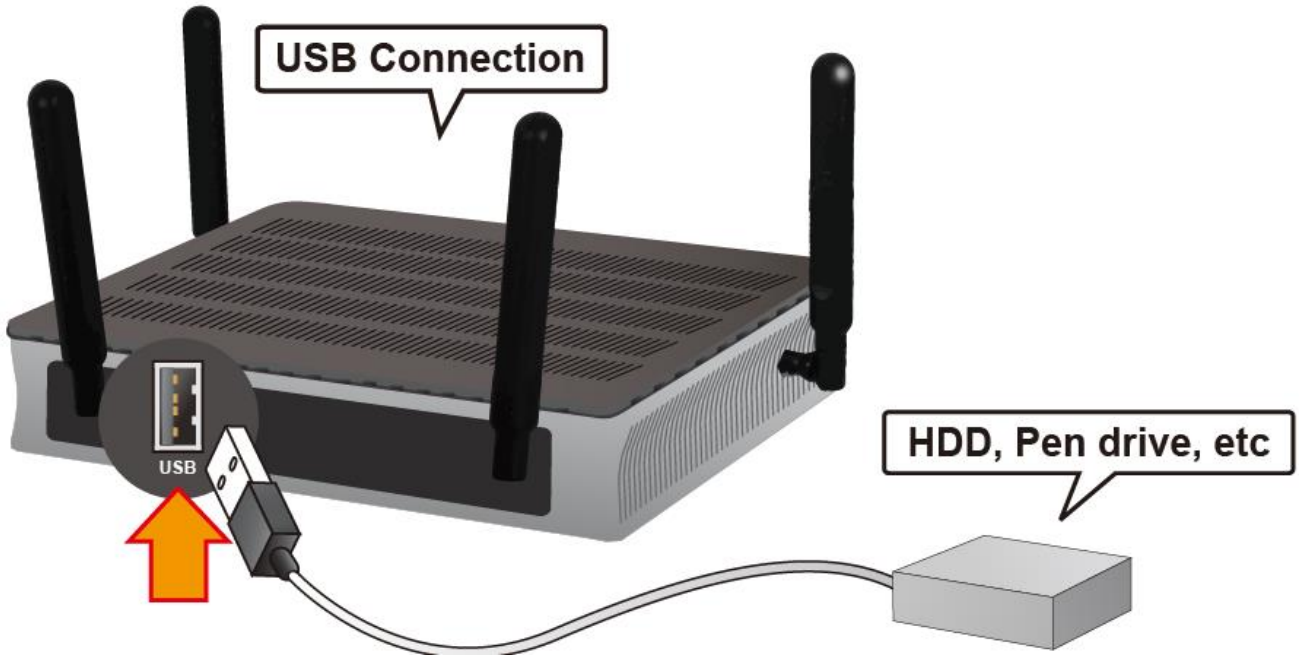
4. LAN Connection

Connect the supplied RJ-45 Ethernet cable to one of the Ethernet ports, and the other side to the PC's Ethernet interface.



4. (Optional) USB Connection (For Print Sever & Storage)

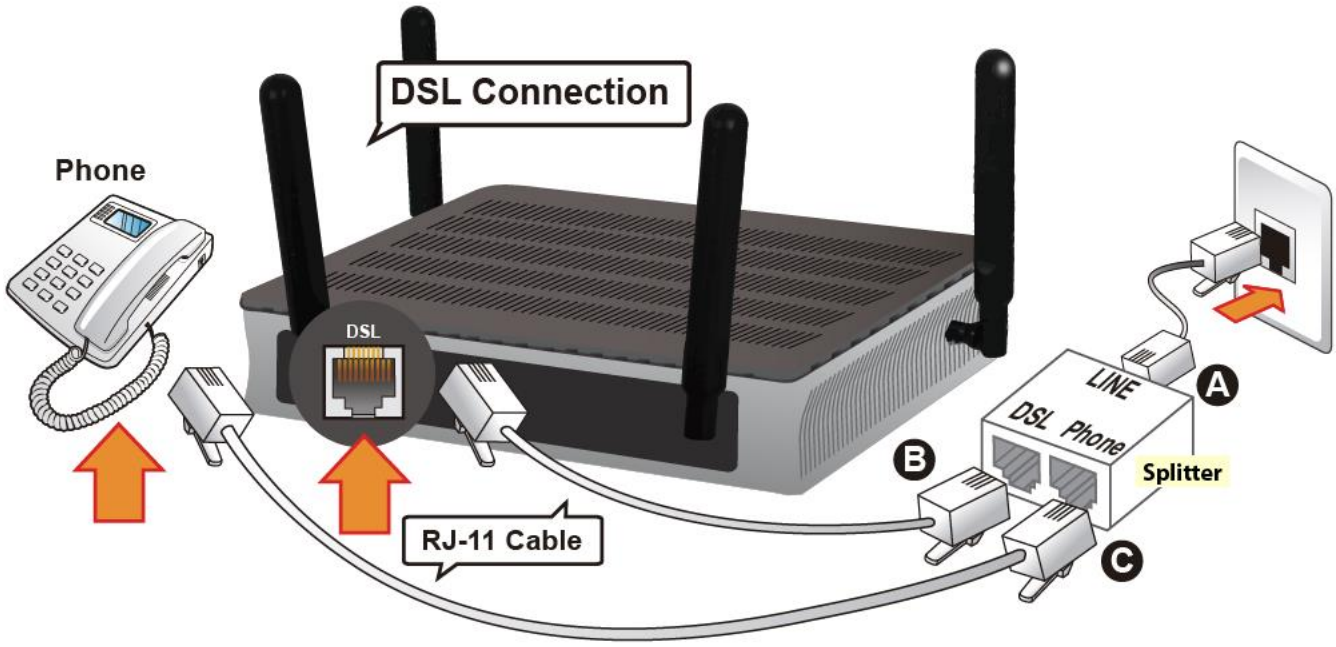
FTP server, samba server and DLNA media server are supported.



5. WAN Connection

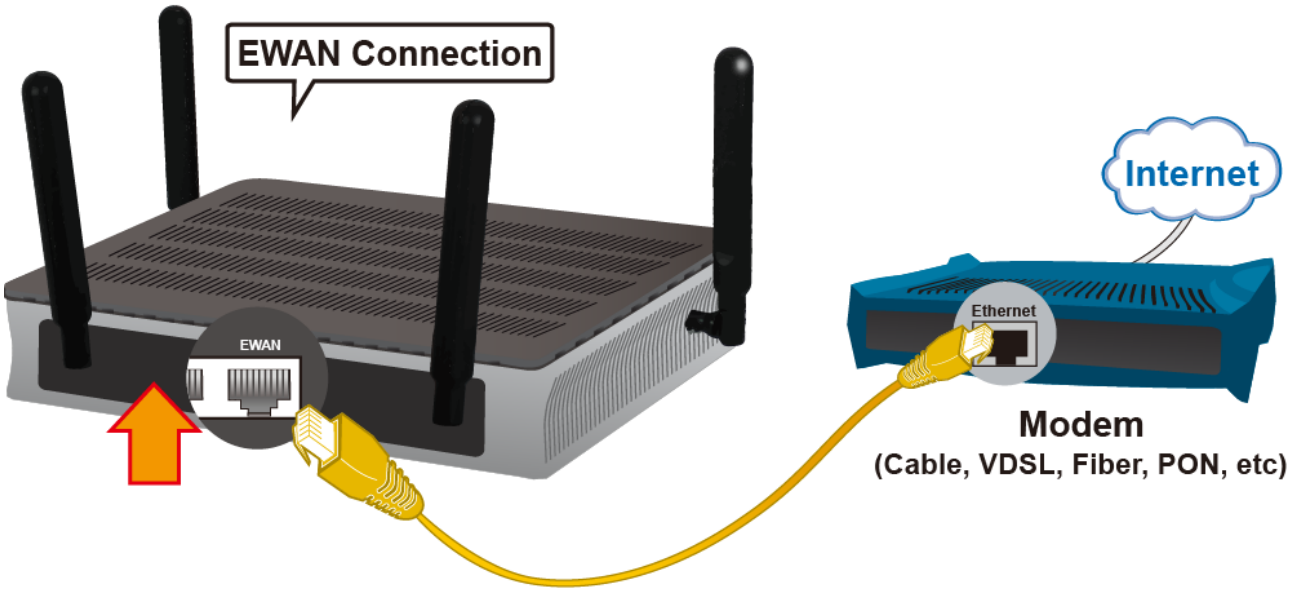
A. xDSL Interface

Connect the supplied RJ-11 phone cable to the **DSL port** and the other side to the phone jack on the wall. If you want to use a splitter or micro-filter to prevent inter-modulation distortion and improve DSL and phone service performance but not sure what type of tiler to use, please consult with your service provider for further assistance.



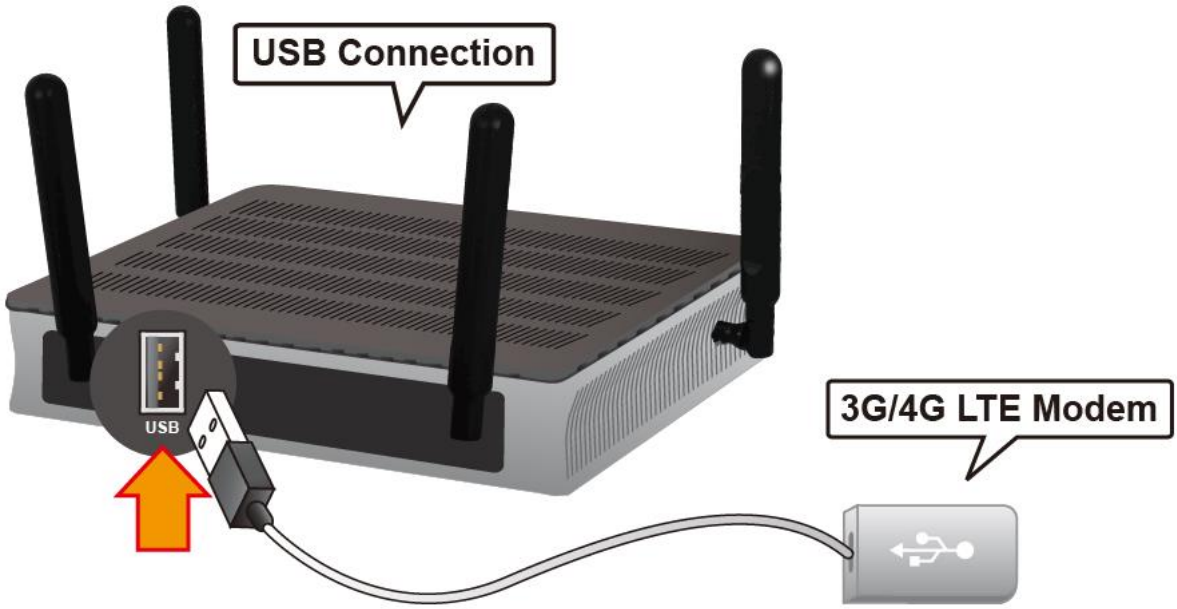
B. EWAN Interface

Connect RJ-45 Ethernet cable to the **EWAN port**, and connect the other side to another alternative broadband device, such as Cable Modem, VDSL, Fiber Modem or PON optic lines. **<Please refer to User Manual for detailed instruction.>**



C. 3G/4G_LTE Mobile Connectivity via USB

The USB 2.0 port supports 3G/4G LTE modem connectivity. Users can conveniently access Internet via 3G/4G LTE, eliminating the limitations of the wired network.



Connecting to the Router

The default IP of modem is **192.168.1.254** with subnet 255.255.255.0. Make sure the attached PC to this router is in the same subnet and has an IP address in the range between 192.168.1.1 ~ 192.168.1.253.
Open a web browser and type **http://192.168.1.254** in the URL address bar.

URL Address bar: type
http://192.168.1.254

The login prompt will appear. Input the default username (**admin**) and password (**admin**) for Account type, Administrator. ***This username / password may vary by different Internet Service Providers.**

Quick Setup Your Router

Before start configuring your BEC 8900AX, make sure you have the WAN port connected to phone jacks or with your Internet box or fiber line.

Step 1: WAN Connection Setup

Select the primary network interface for your Internet connection, xDSL / EWAN / USB 3G_4G LTE mode.

Click **Continue** to the next step

Step 2: Internet Connection Setup

Next to **Type**, select your Internet connection and fill out all of the appropriate fields.

Step 3: Connection attempts to the Internet

Wait for 10 - 30 seconds for 8900AX to establish an Internet connection.

Step 4: Internet connection established

“Congregations!” message will be shown if the Internet connection is ready to go.

Step 5: Setup Wireless Connection

Setup the SSIDs and change the Security Passphrase to secure your wireless network.

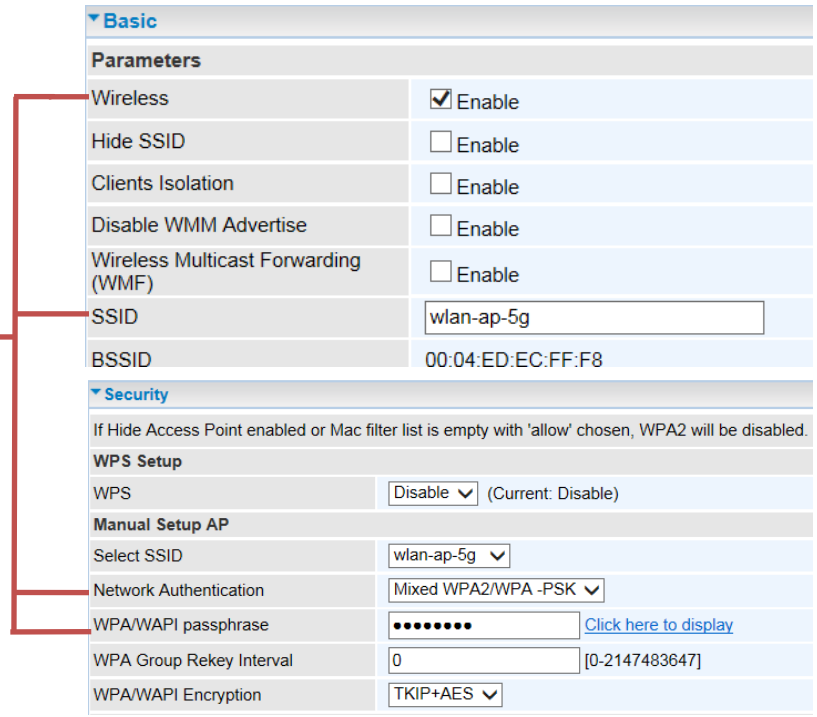
Wireless Service: select Enable

SSID: Assign a unique name

Network Authentication: select a mode
- WPA-PSK
- WPA2-PSK (Most secure one)
- Mixed WPA2 / WPA-PSK (Auto detect WPA mode with wireless clients)
- Open + WEP Enable (Less secure)
- Share + WEP Enable (Less secure)
- Open + WEP Disable (No security)

Passphrase: key for wireless authentication
- **WPA-PSK, WAPA2-PSK**: Assign a key between 8 ~ 63 characters.
- **WEP:** select **Open or Share System**, use default WEP Key **1** then assign **26 Hex** codes

Next Step: click Apply



Please see the relevant sections of User Manual for more detailed information.

Troubleshooting

1. **None of the LEDs are on when you turn on the router.**
   Check the connection between the adapter and the router. If the error persists, you may have a hardware problem. In this case you should contact technical support.

2. **You have forgotten your router login and/or password.**
   Try the default login and password, please refer to User Manual. If this fails, you can restore your router to its factory settings by holding the Reset button on the back of your router for 6 seconds or more.

3. **Cannot ping any PCs on the LAN.**
   Check the Ethernet LEDs on the front panel. The LED should be on for a port that has a PC connected. If it is off, check the cables between your router and the PC. Make sure you have uninstalled any software firewall for troubleshooting. Verify that the IP address and the subnet mask are consistent between the router and the workstations.

Product Support and Contact Information

Most problems can be solved by referring to the **Troubleshooting** section in the User Manual. If you have other inquiries or need further technical support, please contact with your Internet Service Provider or visit us at www.bectechnologies.net.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference
(2) This device must accept any interference received, including interference that may cause undesired operation.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. . This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.