BEC
T E C H N O L O G I E S

BEC 6500AEL

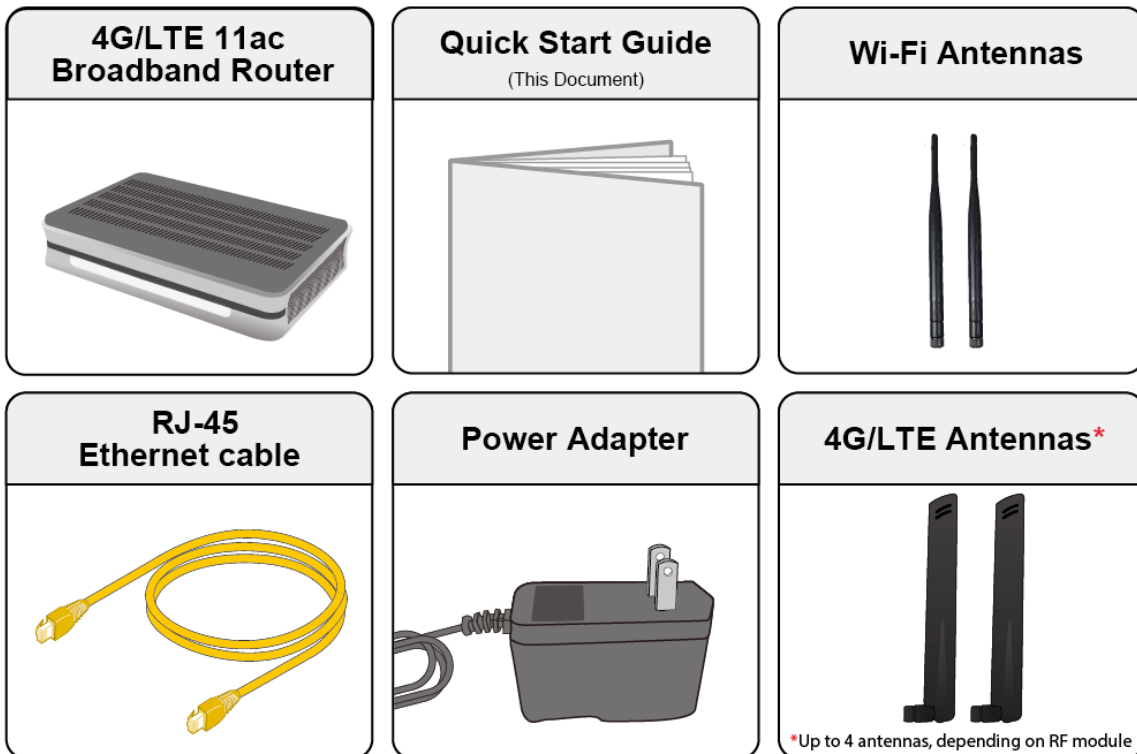## 4G/LTE Enterprise Multi-Service Router

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 6500AEL 4G/LTE Wi-Fi Broadband Router x 1

✓ This Quick Start Guide x 1

✓ Wi-Fi Antenna x 2

✓ RJ-45 Ethernet Cable x 1

✓ DC Power Adapter 15V DC 1.6A x 1

✓ 4G/LTE Antenna x 2 (**6500AEL R18/R21** is using four (4) 4G/LTE antennas)

4G/LTE 11ac Broadband Router	Quick Start Guide (This Document)	Wi-Fi Antennas
RJ-45 Ethernet cable	Power Adapter	4G/LTE Antennas* *Up to 4 antennas, depending on RF module

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 at high temperature.**
- **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 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.**
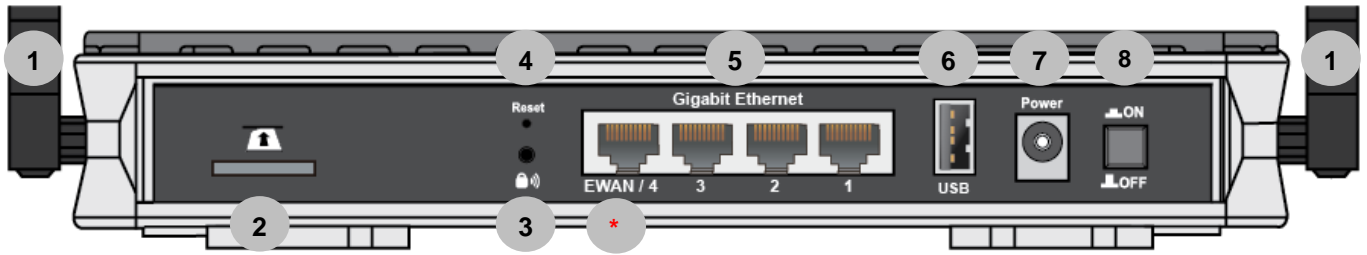
Front Panel - LEDs / LTE Connectors
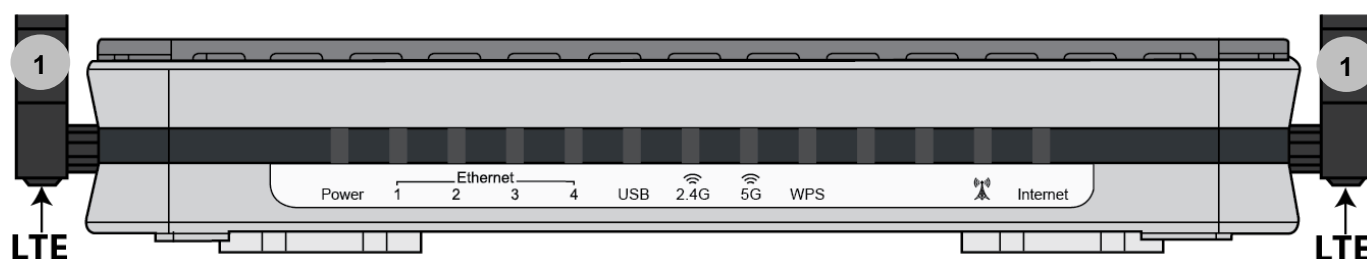
PORT		MEANING
1	**LTE Antenna Connectors**	Screw the supplied mobile LTE antennas onto the antenna connectors on both sides. (6500AEL R18 / R21 uses **4** LTE antennas and **2** Wi-Fi antennas)

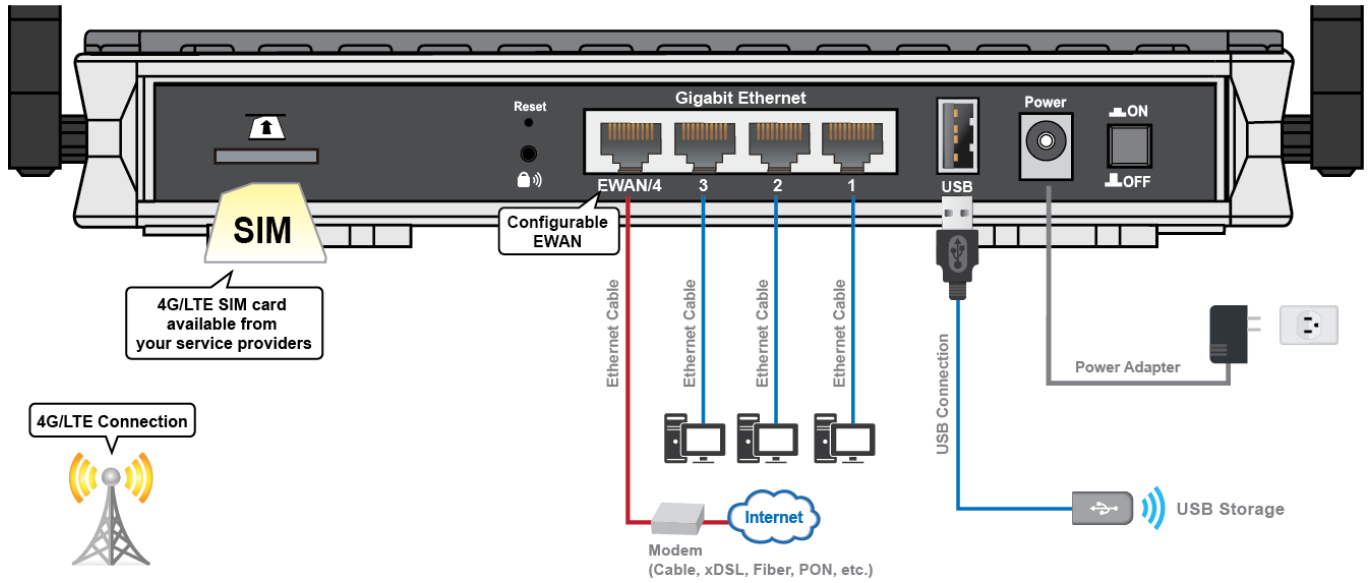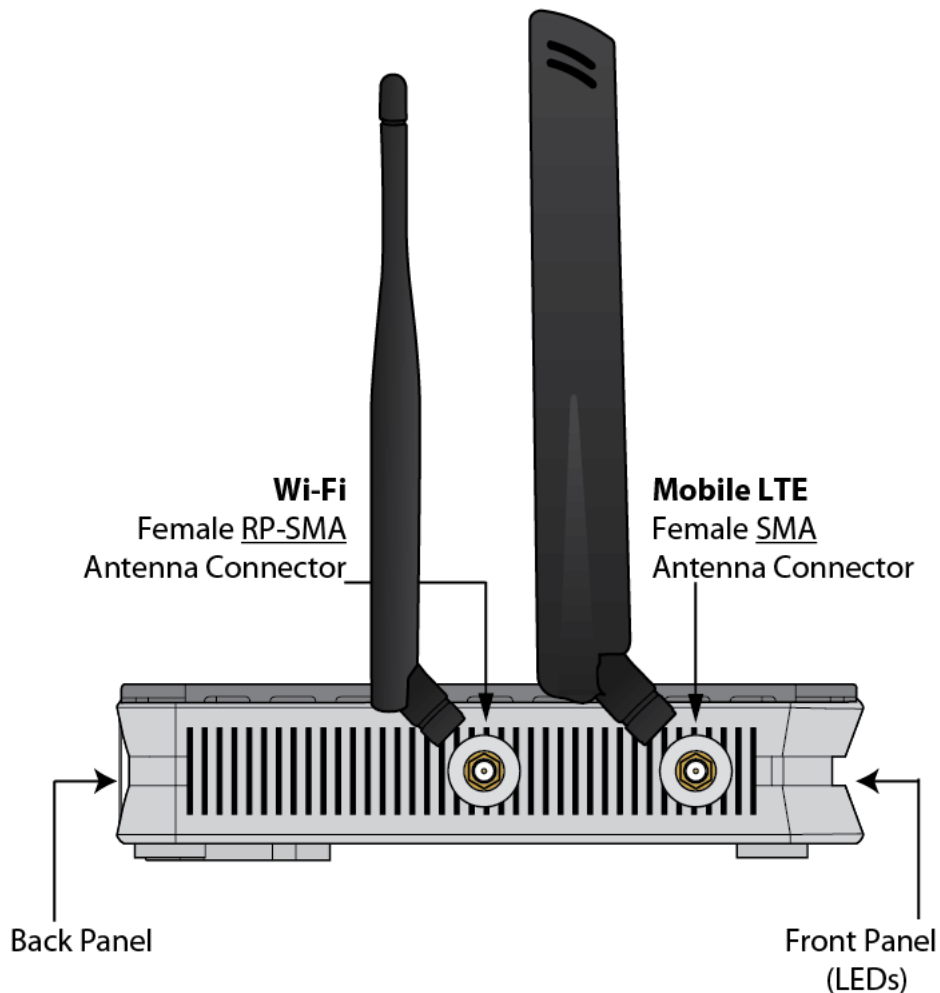| LED	STATUS	DESCRIPTION
Power ⏻	Green	System is up and ready
	Red	Boot failure
Ethernet Port LAN 1 - 4	Green	Transmission speed is at Gigabit speed (1000Mbps)
	Orange	Transmission speed is at 10/100Mbps
	Blinking	Data being transmitted/received
USB	Green	Connecting to hard drive for storage or file sharing, etc.
Wi-Fi 2.4G / 5G 📶	Green	Wireless connection to 2.4G or 5G network is established
	Blinking	Data being transmitted / received
WPS	Green	Wireless device(s) being connected successfully via WPS mode
	Blinking	WPS is enabled and trying to establish a WPS connection
LTE (Received Signal Strength Indicator)	Green	RSSI greater than -69 dBm. Excellent signal condition
	Green Flashing Quickly	RSSI from -81 to -69 dBm. Good signal condition
	Orange Flashing Quickly	RSSI from -99 to -81 dBm. Fair signal condition
	Orange Flashing Slowly	RSSI less than -99 dBm. Poor signal condition
	Orange	No signal and the 4G_LTE module is in service
	Off	No LTE module or LTE module fails
Internet	Green	WAN IP is received, and traffic is passing thru the device
	Red	Cannot get a WAN/public IP address
	Off	The device is either in bridged mode or WAN connection not ready.

Rear Panel – Ports / Connectors

PORT		MEANING
1	**Wi-Fi Antenna Connectors**	Screw the supplied Wi-Fi antennas onto the antenna connectors on both sides
1	**LTE Antenna Connectors**	(6500AEL R18 / R21 uses **4** LTE antennas and **2** Wi-Fi antennas) Screw the supplied mobile LTE antennas onto the antenna connectors on both sides
2	**SIM Card Slot**	Insert the mini SIM card (2FF) with the gold contact facing down Push the mini SIM card (2FF) inwards to eject it
3	**WPS & Wireless On/Off**	By controlling the pressing time, users can achieve two different effects: **(1) WPS***: Press &hold the button for **less than 6 seconds** to trigger WPS function. **(2) Wireless ON/OFF button**: Press & hold the button for **more than 6 seconds** to enable or disable the wireless. *** Refer to the WPS section in the User Manual for more details.**
4	**Reset**	After the device is powered on, press it **6 seconds or above**: to restore to factory default settings (this is used when you cannot login to the router, e.g. forgot your password)
5	**Gigabit LAN Ethernet (1 - 4)**	Connect a UTP Ethernet cable (Cat-5 or Cat-5e) to one of the four LAN ports when connecting to a PC or an office/home network of 10Mbps /100Mbps /1000Mbps *** Ethernet WAN/4** Connect to Fiber/ Cable/ xDSL Modem with a RJ-45 cable, for broadband connectivity **Note: LAN 4 automatically becomes an ethernet WAN port when the ETH WAN internet interface is being selected in the GUI**
6	**USB**	Mainly for storage and file sharing
7	**DC Power Jack**	Connect the supplied Power Adapter to this jack
8	**Power ON/OFF**	Power ON/OFF switch

Hardware Connection

Back Panel Ports & Connectors

Wi-Fi & LTE Antenna Connectors (Standard Version)

Wi-Fi
Female RP-SMA
Antenna Connector

Mobile LTE
Female SMA
Antenna Connector

Back Panel

Front Panel
(LEDs)

Wi-Fi & LTE Antenna Connectors (6500AEL R18 / R21 Only)

Mobile LTE
Female <u>SMA</u>
Antenna Connector

Mobile LTE
Female <u>SMA</u>
Antenna Connector

Back Panel

Wi-Fi
Female <u>RP-SMA</u>
Antenna Connector

Front Panel
(LEDs)
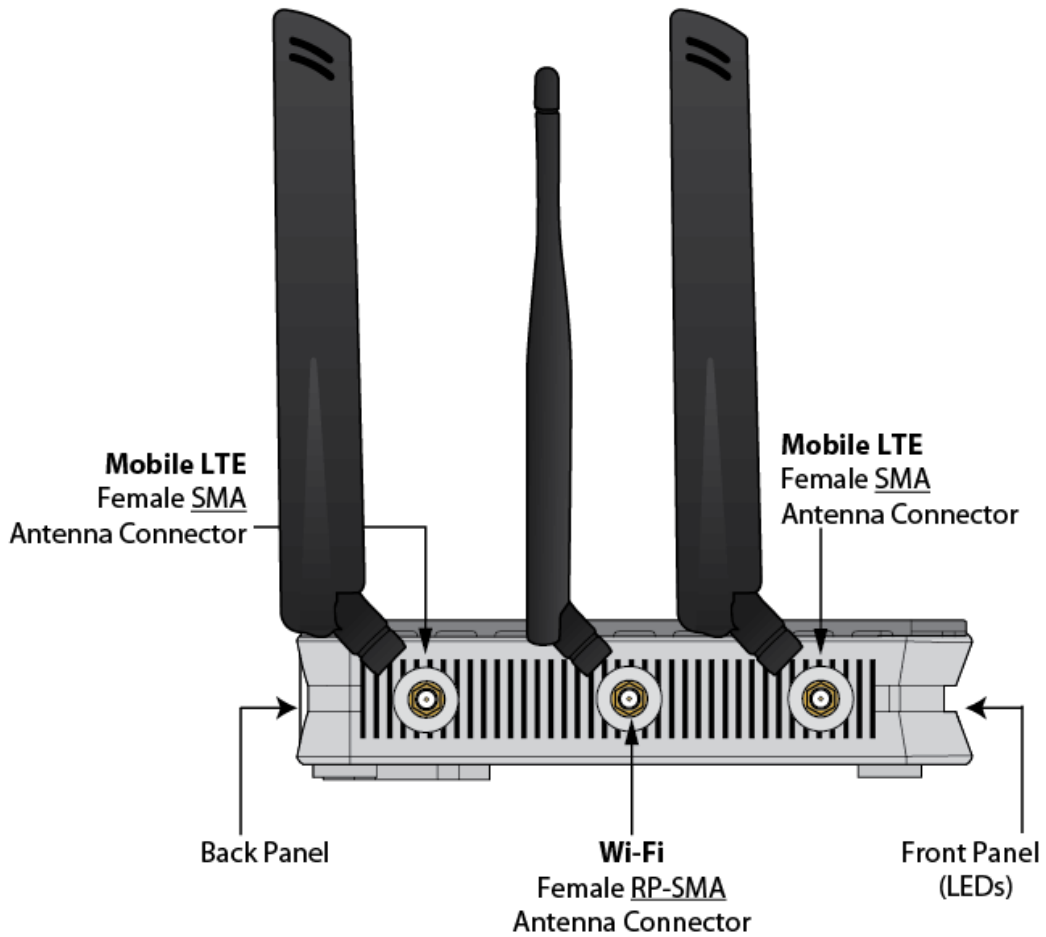
Hardware Installation

1.   Power Connection
   Plug in the supplied power adapter to the wall jack, the other side to device then power **ON** the 6500AEL by pressing the Power On/Off button.

Press to power on the 6500AEL

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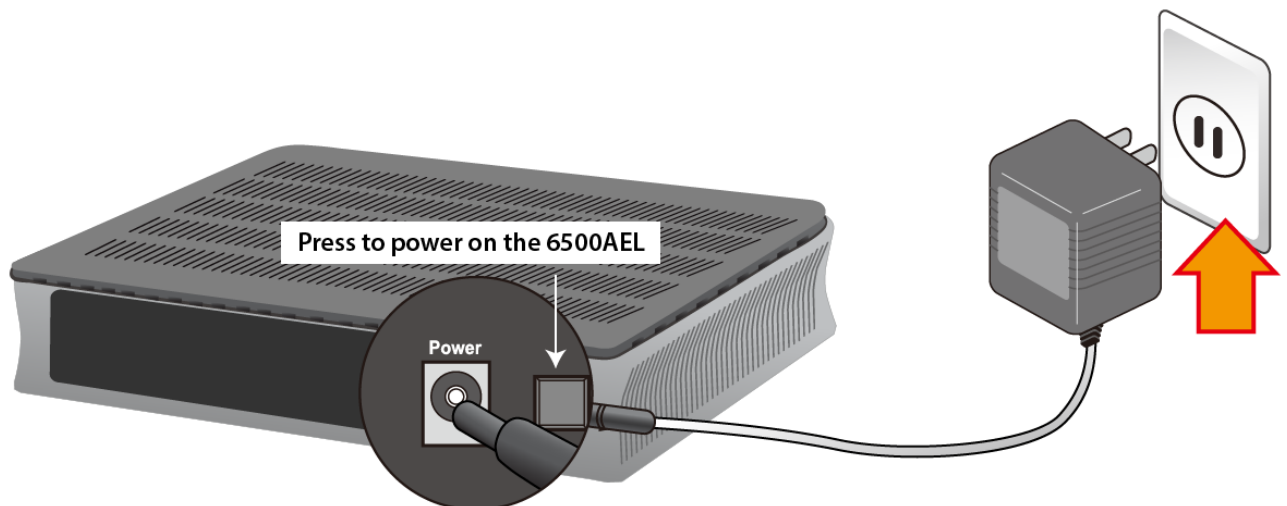
2. LAN Connection
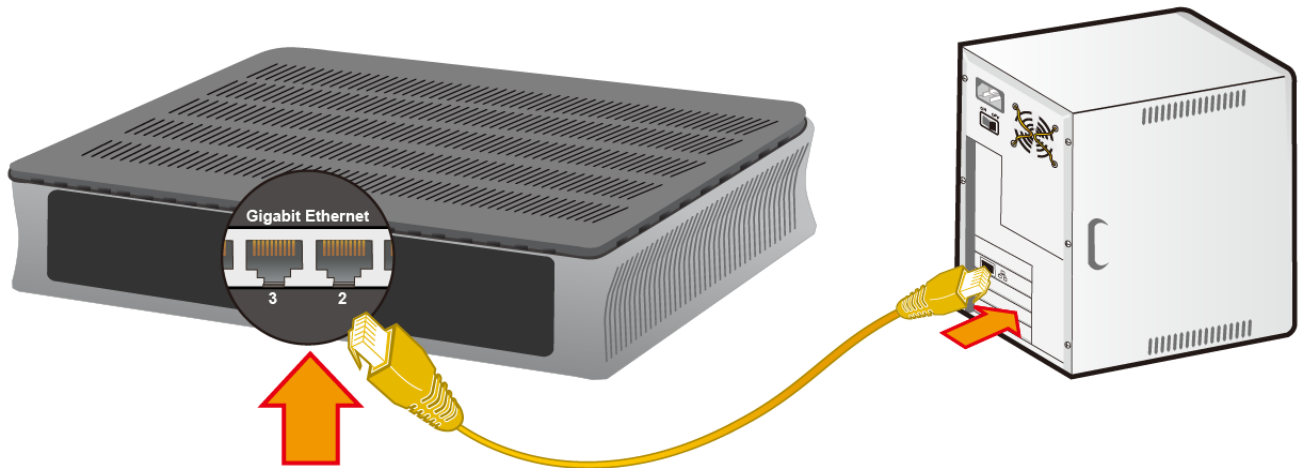
Connect the supplied RJ-45 Ethernet cable to one of the Ethernet ports, and the other side to the PC's Ethernet interface.

3. WAN Link Interface and Connection

BEC 6500AEL supports failover and failback on multiple WAN interfaces, 4G/LTE and Ethernet WAN **<Please refer to User Manual for detailed Internet setup>**

3.1 4G_LTE Connection

Slide the SIM card into the card slot of the device with the gold contact facing down. Make sure that the SIM card has been slid into the bottom of the slot with a click. When removing the SIM card, press the SIM card again it will be ejected from the card slot.
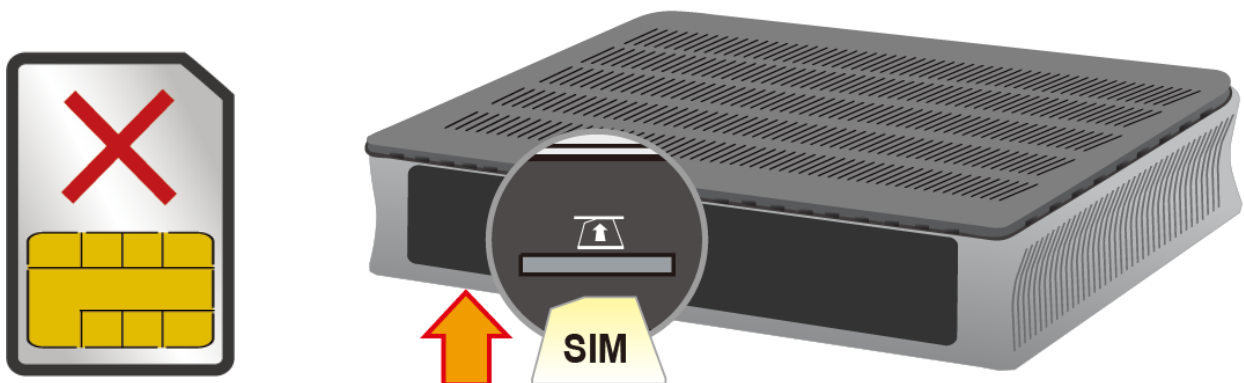
WARNING: Please power off the device before inserting or removing the SIM

3.2 Ethernet WAN Connection

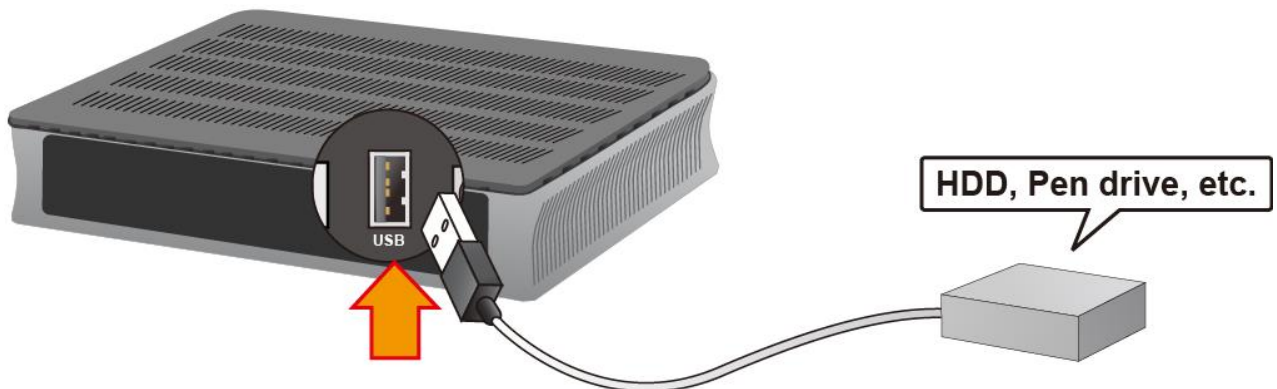Connect RJ-45 Ethernet cable to the **EWAN port**, and connect the other side to another alternative broadband device, such as Cable Modem, VDSL, Fiber Modem or PON optic lines.
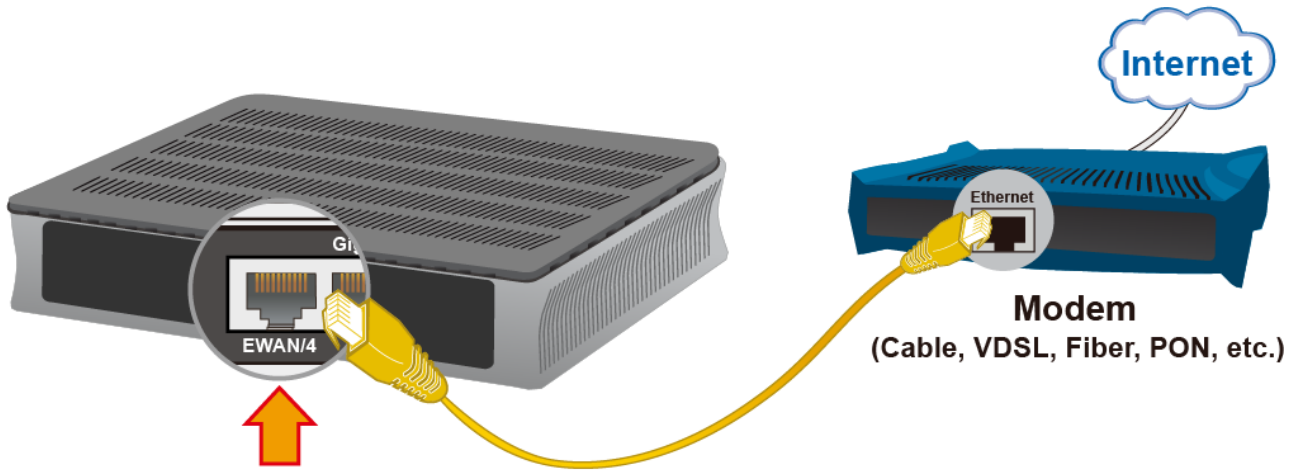
4. USB for Network File Sharing

BEC 6500AEL has built-in FTP and Samba Servers, simply plug in an external USB HD then follow the instruction setup in the User Guide.
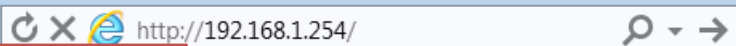
Connecting to the Router

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

⟳ ✕ 🅮 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

Wired Broadband Connection - Before start configuring the 6500AEL, make sure you have the Ethernet WAN connected with your Internet box or fiber line.

Step 1: Change administration password
Setup a new password for "admin" account for device management. The default password is "admin".   Click Continue to go on to the next step.
*The password may vary by different Internet Service Providers.

New Password: assign a new, unique password

Confirm Password: re-enter the new password again

Next Step: click Next

▼ Quick Start - Password

You may change the admin account password by entering in a new passw

| New Password | |
| Confirm Password | |

Back   Next

Step 2: Time Zone configuration
Enable and select your Time Zone then click Continue to go on to the next step.

Time Zone: select your time zone

Next Step: click Next

▼ Quick Start - Time Zone

Select the appropriate time zone for your location and click NEXT to continue

| Time Zone | (GMT-06:00) Central Time (US & Canada), Maxico |

Back   Next

Step 3: Setup Wireless Connection

Access Point: select Activated

SSID: Assign a unique name

Channel: pick from 1~11

Security Type: select a mode
- Disable (No security)
- WPA
- WPA2 (Most secure one)
- WPA / WPA2 (auto detect WPA mode with wireless clients)
- WEP (Less secure one)

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

Next Step: click Next

▼Quick Start - Wireless

Configure your wireless network, authentication type and click NEX

Access Point	⦿ Activated ○ Deactivated
SSID	BEC345
Broadcast SSID	⦿ Yes ○ No
Channel	UNITED STATES ▼ 11 ▼
Security Type	Mixed WPA2/WPA-PSK ▼
WPA Algorithms	AES ▼
Pre-Shared Key	1234567890
Key Renewal Interval	600 seconds (10 ~ 4194303)

Back   Next

Step 4: WAN / Internet Connection Setup
Select the appropriate WAN protocol then fill out the information provided by your ISP in all relevant parameters.

Example: WAN Interface in Ethernet WAN (EWAN) mode.

Protocol: select one of them
- Dynamic IP Address (Obtain an IP address automatically)
- Static IP Address (Manually assign an IP)
- PPPoE
- Bridge Mode

Net Step: click Continue

▼Quick Start - ISP Connection Type

Select the WAN Interface and Internet Connection Type to conn

WAN Interface	EWAN ▼
Service	0 ▼
ISP	○ Dynamic IP Address (Select the WAN Interface and
	○ Static IP Address (Choose this option to set static I
	⦿ PPPoE (Choose this option if your ISP uses PPPoE
	○ Bridge Mode (Choose this option if your ISP uses E

Back   Next

Step 5: Save Confirmation Settings
Click "Next" to save and complete the Quick Setup.
You should now be able to access to the Internet.

Please see the relevant sections of User Manual for 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. **Can't 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.