1200M 11AC dual band Gigabit Wireless Router

KFR11AC-128R-16F

User Manual

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Chapter 1 Introduction

Congratulations on your purchase of this outstanding 11ac Dual-Band Wireless Gigabit Router. The Wireless Router using 2.4G and 5G dual-band concurrent technology, support latest 802.11ac standards, backward compatibility IEEE802.11 a/b/g/n, 2.4GHz and 5GHz wireless transmission rate up to 1167Mbps when concurrent operation, Integrated router, Wi-Fi access point, 4 ports gigabit switch and fire wall functions in one. Provide convenient and comprehensive network management functions, supports URL filtering, MAC address filtering and the QoS bandwidth control function, can effectively allocate the client's download rate. Supports wireless data encryption, and can guarantee the security of data transmission in wireless network.

1.1 Features

- Provides a 10/100/1000M WAN interface, can be connected to xDSL modem, Cable modem and Ethernet.
- Provides four 10/100/1000M LAN interface, can be connected to various Ethernet device.
- 2.4G and 5G concurrent working wireless transmission rate up to 1167Mbps.
- Supports the WPS one key encryption, easy to implementing network encrypted connection.
- Supports 64/128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK, etc. encryption and security mechanism.
- Built-in Network Address Translation (NAT) supports virtual server, special application and DMZ host.
- Built-in DHCP server, and also supports static address allocation.
- Supports the VPN pass - through, can build a VPN client.
- Built-in firewall functions, supports domain and MAC address filtering.
- Supports QoS bandwidth control function, can effectively allocate the client's download rate.
- Supports for dynamic DNS function, can provide domain name service for dynamic IP address.
- Built-in static routing function, can according to need to build special network topology.
- Supports access control based on MAC address, can effectively to control the Intranet user Internet access permissions.
- Supports remote Web management and software upgrades.

1.2 System Requirement

- An Ethernet-Based Cable or xDSL modem
- An Ethernet Card on PC
- TCP/IP network protocol for each PC
- RJ45 Twisted-pair
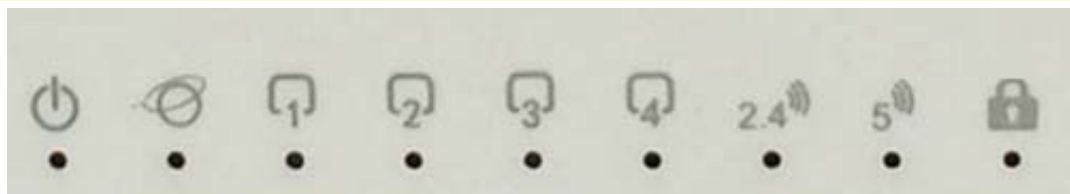- Microsoft IE (or Firefox or Netscape)

1.3 Package Contents

Please unpack the box and check the following items:

- One 11ac Dual-Band Wireless Gigabit Route
- One Power Adapter
- One User Manual

Chapter 2 Hardware Installation

2.1 Led indicators

The top panel contains LED indicators that show the status of the unit.

Name	Status	Indication
Power	Off	Power is off.
	On	Power is on.
WAN LAN(1-4)	Off	There is no device linked to the corresponding port.
	On	There is a device linked to the corresponding port but there is no activity.
	Flashing	There is an active device linked to the corresponding port.
2.4GHz	Off	The wireless function is disabled.
	Flashing	The wireless function is enabled. The Router is working on 2.4GHz radio band.
5GHz	Off	The wireless function is disabled.
	Flashing	The wireless function is enabled. The Router is working on 5GHz radio band.
SYS/WPS	Slow Flashing	The Router is working properly.
	Fast Flashing	the LED flashes fast about two minutes during WPS working.

2.2 Back Rear Panel

The following parts are located on the rear panel.

WAN: 10/100Mbps RJ45 port. The WAN port is where you will connect Cable/xDSL Modem or other LAN.

LAN (1,2,3,4): These four LAN ports are where you will connect networked devices, such as PCs, print servers, remote hard drives, and anything else you want to put on your network. If you connect this product with the Hub (or Switchboard) correctly, the Router's corresponding LED and the Hub's (or the Switchboard's) must be illuminates.

WPS: With the Router powered on, press the button about 1 second, it is WPS function and the WPS LED will flash two minutes.

RESET: With the Router powered on, use a pin to press and hold the button about 7 seconds, the Router will reset to default setting.

ON/OFF: The switch for the power.

POWER: The Power socket is where you will connect the power adapter. Please use the power adapter provided with this Router.

Wireless antenna: To receive and transmit the wireless data.

2.3 Typical install

Before installing the Router, make sure your PC is connected to the Internet through the broadband service successfully. If there is any problem, please contact your ISP. After that, please install the Router according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

Dual-Band Wireless Gigabit Router
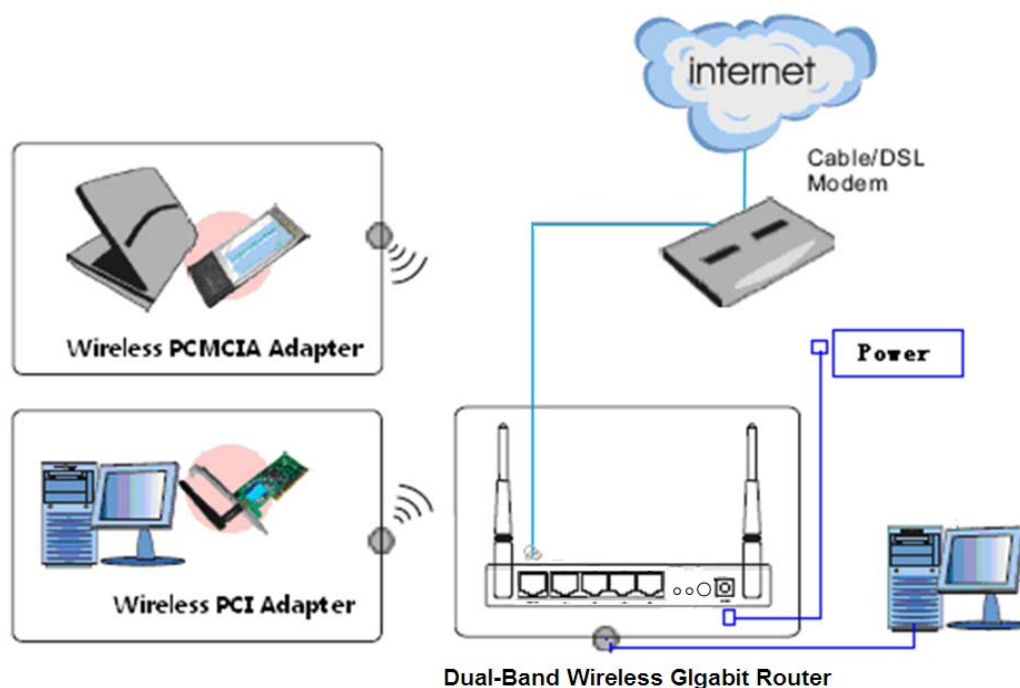
1. Make sure all devices, including your PCs, modem, and Router, are powered down.
2. Using an Ethernet network cable, connect the LAN or Ethernet network port of the cable or DSL modem to the Router's WAN port.
3. Power on the cable or DSL modem, and power on the PC you wish to use to configure the Router.

4. Connect the included power adapter to the Router. And connect the other end of the adapter to an electrical outlet.

Chapter 3 Quick Installation Guide

The chapter mainly presents how to enter the Router's Web page and simple router settings. After you have finished the hardware installation (Please refer to chapter 2), the following steps will assist you to set the network configurations for you computer.

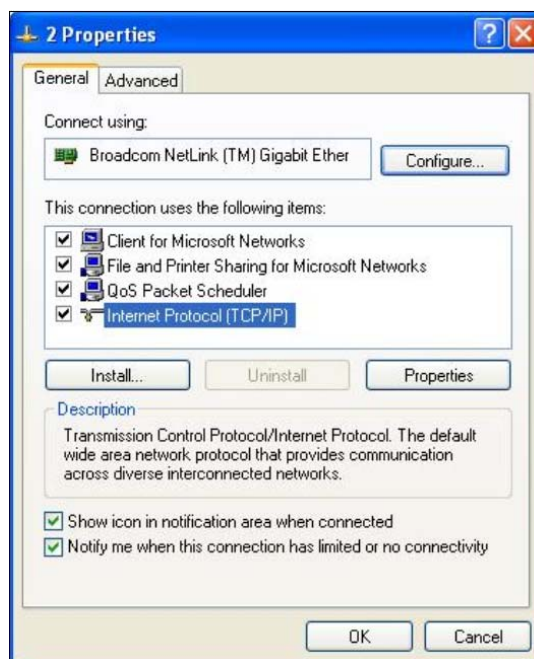## 3.1 Set the Network Configurations

1. On your computer desktop right click **"My Network Places"** and select **"Properties"**.
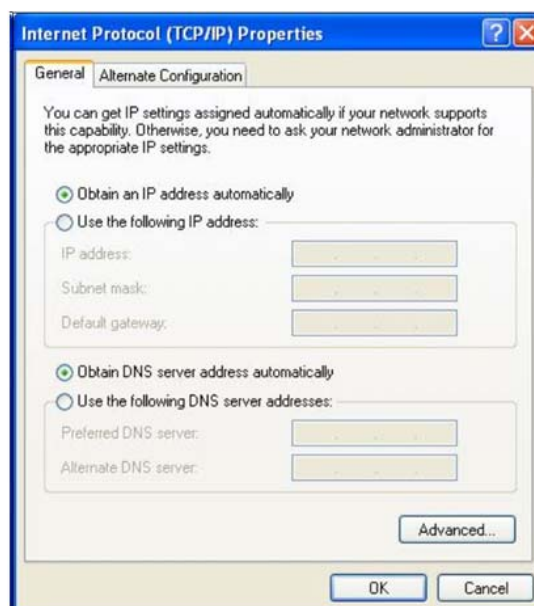

2. Right click **"local Area Network Connection"** and select **"Properties"**.
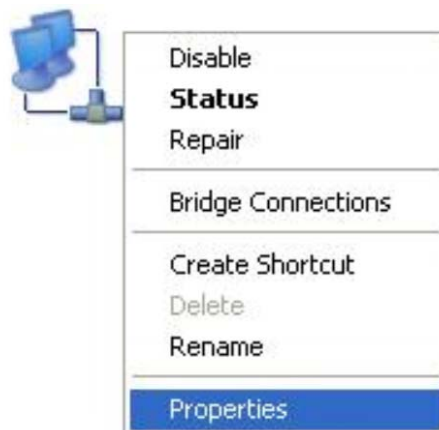
3. Select **"Internet Protocol (TCP/IP)"** and click **"Properties"**.

4. Select **"Obtain an IP address automatically"** or select **"Use the following IP address(S)"**.

A. Select **"Obtain an IP address automatically"** and **"Obtain DNS server address automatically"**. Click **"OK"**.

B. "Use the following IP address (S)"

IP Address: 192.168.1.XXX: (XXX is a number from 2~254)

Subnet Mask: 255.255.255.0

Gateway: 192.168.1.1

DNS Server: You need to input the DNS server address provided by you ISP. Otherwise, you can use the Router's default gateway as the DNS proxy server.

Tip: If you are not sure of the DNS server address, we recommend you to select "Obtain an IP address automatically (O)" and "Obtain a DNS server address automatically".
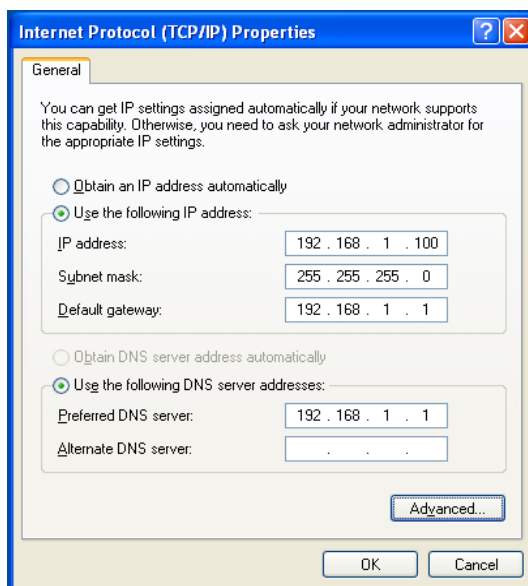
Click **"OK"** to save the configurations.

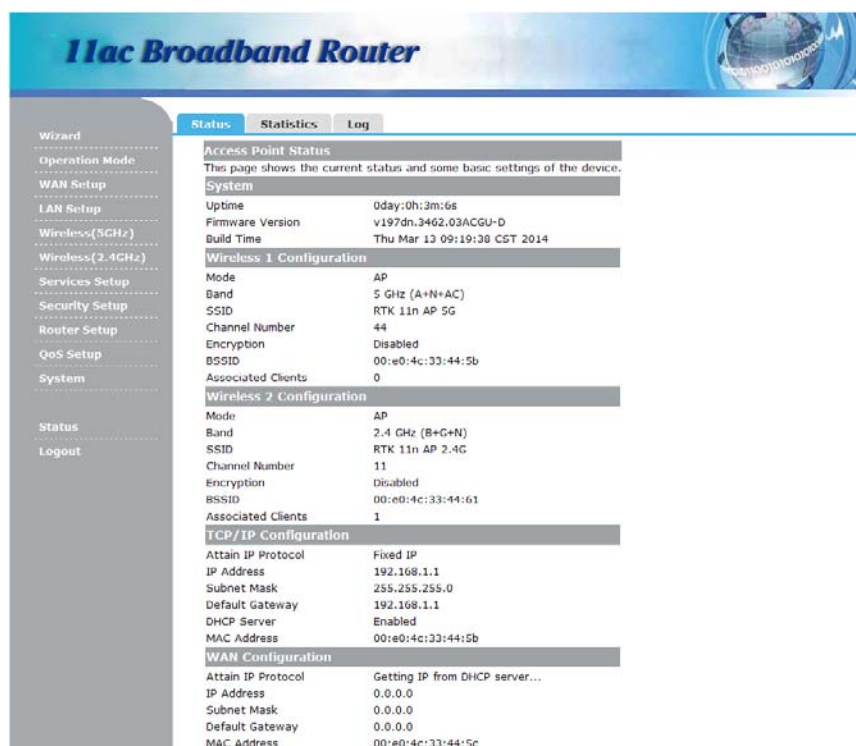## 3.2 Getting Started

To access the configuration pages, open a web-browser such as Internet Explorer and enter the IP address of the router (**192.168.1.1**).
The Default User/Password: **admin**

If successful, you can see the status page.

Select Wireless Band

You can select Wireless Band.

2.4GHz - You can use the 2.4GHz band to connect to many classic wireless devices like gaming consoles, laptops, DVRs, ect.

5GHz - This band is less crowded and is used for time-sensitive music, video streaming or gaming. Using this band can avoid interference with 2.4GHz networks or noisy devices like cordless phones and microwave ovens.

Wireless 5GHz LAN Settings

For example, here we configure the basic parameters for 5 GHz wireless network as the following screenshot:

Band: This filed determines the wireless mode which the Router works on.
- **5GHz (A)** - Select if all of your wireless clients are 802.11a.
- **5GHz (N)** - Select if all of your wireless clients are 802.11n.
- **5GHz (A+N)** - Select if you are using both 802.11a and 802.11n wireless clients.
- **5GHz (AC)** - Select if all of your wireless clients are 802.11ac.
- **5GHz (N+AC)** - Select if you are using both 802.11n and 802.11ac wireless clients.

● **5GHz (A+N+AC)** - Select if you are using both 802.11a, 802.11n and 802.11ac wireless clients.

Mode: Support AP, Client, WDS and AP+WDS mode.

Network Type: This type is only valid in client mode.

SSID: Service Set Identifier, it identifies your wireless network.

Channel Width: Select the channel width from the drop-down list.

ControlSideband: This relates to the channel number used for your wireless network. An upper band represents higher channels and vice versa.

Channel Number: Indicates the channel setting for the router.

Enable Mac Clone: Enable or disable MAC clone option. (You can use the "Mac Clone" button to copy the MAC address of the Ethernet Card installed by your ISP and replace the WAN MAC address with this MAC address.)

Wireless 5GHz Security Setup

Secure your wireless network by turning on the WPA or WEP security feature on the router. This section you can set WEP and WPA-PSK security mode.

The following picture shows how to set the WEP security.

Key Length: Specify the Length of the key, 64-bit or 128-bit.

Key Format: Specify the format of the key, ASCII or hex.

Key Setting: Enter the key here, its format is limited by the key format, ASCII or Hex.

The following picture shows how to set WPA-PSK security, you can select WPA (TKIP), WPA2 (AES) and Mixed mode.

Pre-Shared Key Format: Specify the format of the key, passphrase or hex.

Pre-Shared Key: Enter the key here, its format is limited by the key format.

Click "Next" to set the 2.4GHz wireless network by the same method, and then click "Finish" button to complete the setting.

Through the wizard setup, you can complete the basic functions of a router settings to achieve Internet access. If you need more advanced setting of the router, please refer to the following chapters.

Chapter 4 Status

There are three submenus under the Status menu: **Status, Statistics, Log**. Click anyone, you will see the following status.

4.1 Status

The System Status provides you with a snapshot of your Router's current connections and settings.

The System Information section provides you with the router's firmware version and build. This is used to help our support department determine what firmware version your device is running. The Current Date / Time is the setting for the system clock.

The Wireless Configuration shows the details of the 5.0GHz and 2.4GHz wireless networks.

The TCP/IP Configuration displays the current configurations for local network IP address and DHCP server settings.

The WAN Configuration displays the information from your Internet Provider. If for some reason your Internet connection stops working, you may try running through the Smart Setup Wizard again.

Wizard	**Status** **Statistics** **Log**	
Operation Mode	**Access Point Status**	
WAN Setup	This page shows the current status and some basic settings of the device.	
	System	
LAN Setup	Uptime	0day:0h:2m:27s
Wireless(5GHz)	Firmware Version	v197dn.3462.03ACGU-D
Wireless(2.4GHz)	Build Time	Thu Mar 13 09:19:38 CST 2014
	Wireless 1 Configuration	
Services Setup	Mode	AP
Security Setup	Band	5 GHz (A+N+AC)
	SSID	RTK 11n AP 5G
Router Setup	Channel Number	44
QoS Setup	Encryption	Disabled
System	BSSID	00:e0:4c:33:44:5b
	Associated Clients	0
	Wireless 2 Configuration	
Status	Mode	AP
Logout	Band	2.4 GHz (B+G+N)
	SSID	RTK 11n AP 2.4G
	Channel Number	11
	Encryption	Disabled
	BSSID	00:e0:4c:33:44:61
	Associated Clients	0
	TCP/IP Configuration	
	Attain IP Protocol	Fixed IP
	IP Address	192.168.1.1
	Subnet Mask	255.255.255.0
	Default Gateway	192.168.1.1
	DHCP Server	Enabled
	MAC Address	00:e0:4c:33:44:5b
	WAN Configuration	
	Attain IP Protocol	Getting IP from DHCP server...
	IP Address	0.0.0.0
	Subnet Mask	0.0.0.0
	Default Gateway	0.0.0.0
	MAC Address	00:e0:4c:33:44:5c

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4.2 Statistics

This page shows the packet counters for transmission and reception regarding to wireless and Ethernet networks.

The Wireless 1/2 LAN connection statistics shows all data activity for both the 5.0GHz and 2.4GHz wireless networks separately.

The Ethernet LAN connection statistics shows all data activity for all users physically connected to the wired ports on the Router.

The Ethernet WAN connection statistics shows the data activity for all upload and download data over your Internet connection.

4.3 Log

The System Log is useful for viewing the activity and history of your Router. The System Log is also used by Amped Wireless technicians to help troubleshoot your router when needed. It is recommended that you enable logs in the event that troubleshooting is required. Click the "Refresh" to update the log. Click "Clear" to clear all shown information.

Status	Statistics	Log

System Log   Apply

This page can be used to set remote log server and show the system log.

☐ Enable Log

☐ system all   ☐ wireless   ☐ DoS

☐ Enable Remote Log   Log Server IP Address: [_____]

[   ]

[Refresh]   [Clear]

Enable Log: Click this box to enable Log.

Appendix: Technical Specifications

Standards	IEEE802.11ac, IEEE 802.11a, IEEE 802.11b, IEEE 802.11g, IEEE 802.11n
Interface Type	LAN: 4 x 10/100/1000M RJ45 Ports(Auto MDI/MDIX)
	WAN: 1 x 10/100/1000M RJ45 Port(Auto MDI/MDIX)
Radio Data Rate	5GHz: Up to 867Mbps(11ac) 2.4GHz: Up to 300Mbps(11n)
Frequency range	● 2.4 ~ 2.4835GHz ● 5.15 ~ 5.25GHz ● 5.725 ~ 5.85GHz
Antennas	2 X 2.4G/5G dual-band 5dBi non-removable omnidirectional antennas
LEDs	Power, WPS/System, WAN, LAN(4,3,2,1), WLAN1(2.4G), WLAN2(5G), all the LED color is green.
Power adapter	12V,1A
Dimensions (W x D x H)	159 x 127 x 26mm
Environment	Operating Temperature: 0℃~40℃ Storage Temperature: -40℃~70℃ Operating Humidity: 10%~90% non-condensing Storage humidity: 5%~95% non-condensing

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 Radiation Exposure Statement

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment and it also complies with Part 15 of the FCC RF Rules. This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions

and consider removing the no-collocation statement.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.