



# KA1750 Wireless Router User Manual

Default Login Details	
IP Address	http://192.168.1.1
User Name	admin
Password	admin



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### FCC Warning:

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

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.

Note: 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 equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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### **1** Introduction

Thank you for choosing our product. The KA1750 Wireless Router uses Broadcom's CPE solution that fully complies with IEEE802.11b/g/n/ac standards. It will provide your SOHO with convenient Internet.

#### **1.1 Main Features**

#### 1.1.1 Wireless

- Fully IEEE 802.11b /g /n & IEEE 802.11ac compatible.
- Wireless data rate up to 1750 Mbps
- Operating in the unlicensed 2.4 GHz &5GHz ISM band
- Supports 64/128 bits WEP, WPA, WPA2, WPA/WPA2-PSK, 802.1x

#### **1.1.2 Network Protocol and Features**

- Ethernet to ADSL Self-Learning Transparent Bridging
- Internet Control Message Protocol (ICMP)
- IP Static Routing
- Routing Information Protocol (RIP, RIPv2)
- Network Address Translation (NAT)
- Virtual Server, Port Forwarding
- Dynamic Host Configuration Protocol (DHCP)
- DDNS
- Simple Network Time Protocol (SNTP)
- VPN pass-through (IPSec/PPTP/L2TP)
- Parent control

#### 1.1.3 Firewall

- Built-in NAT
- MAC Filtering
- Packet Filtering

- Stateful Packet Inspection (SPI)
- Denial of Service Prevention (DoS)
- DMZ

#### **1.1.4 Management Support**

- Web Based GUI
- Upgrade or update via FTP/HTTP
- Command Line Interface via Telnet
- Diagnostic Test
- Firmware upgrade-able for future feature enhancement

#### 1.1.5 Operating System Support

- WINDOWS 98/SE/ME/2000/XP/VISTA/7
- Macintosh
- LINUX

#### 1.1.6 Environmental

- Operating humidity: 10%-90% non-condensing
- Non-operating storage humidity: 5%-95% non-condensing

#### **1.2 Packet Contents**

The packet contents are as the following:

•	Router	x 1
•	Power Adapter	x 1
•	Ethernet Cable	x 1
•	CD	x 1

#### **1.3 System Requirements**

- Broadband Internet Access Service (DSL/Cable/Ethernet)
- One DSL/Cable Modem that has an RJ45 connector (which is not necessary if the Router is connected directly to the Ethernet)

- PCs with a working Ethernet Adapter and an Ethernet cable with RJ45 connectors
- TCP/IP protocol on each PC
- Web browser, such as Microsoft Internet Explorer, Mozilla Firefox or Apple Safari

#### **1.4 Factory Defaults**

The device is configured with the following factory defaults:

- IP Address: 192.168.1.1
- Subnet Mask: 255.255.255.0

#### **1.5 Warnings and Cautions**

- never use the product near water.
- To prevent dangerous overloading of the power circuit, be careful about the designed maximum power load ratings. Not to follow the rating guideline could result in a dangerous situation.
- Please note that telephone line on modem must adopt the primary line that directly outputs from junction box. Do not connect Router to extension phone. In addition, if your house developer divides a telephone line to multi sockets inside the wall of house, please only use the telephone that has connected with the splitter of ADSL Router when you access the Internet. Under the above condition, if you also install telephone with anti-cheat-dial device, please pull out this kind of telephone, otherwise ADSL Router may occur frequently off-line.

### 2 Hardware Description

#### **Front Panel**



LED	Color	Function
$(\mathbf{b})$	Blue	Off: Power Not Supplied On: Power Supplied
Ô	Blue	On: The WAN port has detected a link with an attached device Blinking: Data is being transmitted or received by the WAN port Off: No WAN link via the WAN port
•	Blue	On: LAN link established and active via LAN port Blinking: ADSL data activity occurs Off: No LAN link via LAN port
	Blue	On: The 2.4GHz or 5GHz wireless module is ready and idle Blinking: Data transmitting or receiving over WLAN Off: The 2.4GHz or 5GHz wireless function is off
$\langle \mathbf{x} \rangle$	Blue	On: WPS connection is established Blinking: Trying to establish a WPS connection Off: WPS function is off or no WPS connection
\$	Blue	On: USB connection is established Blinking: : Data transmitting or receiving over USB. Off: USB function is off or no WPS connection

#### **Rear panel**



Port	Function
WAN	Connect the device to a cable or DSL modem
ETH1,2,3,4	Connect the device to your PC's Ethernet port, or to the uplink port on your hub/switch, using a RJ-45 cable
RESET	System reset or reset to factory defaults
WPS	On: WPS connection is established Blinking: Trying to establish a WPS connection Off: WPS function is off or no WPS connection
ON/OFF	Switch it on or off
PWR	Connect to the supplied power adapter
USB2.0/3.0	Connect to a printer.

### **3 Hardware Installation**

This chapter shows you how to connect Router. Meanwhile, it introduces the appropriate environment for the Router and installation instructions.

- 1. Using an Ethernet Cable to connect the WAN port of the ROUTER to a cable or DSL modem.
- 2. Using an Ethernet Cable to connect the LAN port of the ROUTER to your LAN or a PC with network card installed.
- 3. Connect the power cable to the PWR connector on ROUTER, then plug in the power adapter to the AC power outlet, and then press the on-off button.



### 4 PC Configuration Guide

- 4.1 Local PC Configuration in Windows 95, 98, ME, XP,7
  - 1. In the Windows task bar, click the "Start" button, point to "Settings", and then click "Control Panel".
  - 2. Double-click the "Network" icon.
  - 3. On the "Configuration" tab, select the TCP/IP network associated with your network card and then click "Properties".
  - 4. In the "TCP/IP Properties" dialog box, click the "IP Address" tab. Set the IP address as 192.168.1.x (x can be a decimal number from 2 to 254.) like 192.168.1.2, and the subnet mask as 255.255.255.0.
  - 5. On the "Gateway" tab, set a new gateway as 192.168.1.1, and then click "Add".
  - 6. Configure the "DNS" tab if necessary. For information on the IP address of the DNS server, please consult with your ISP.
  - 7. Click "OK" twice to confirm and save your changes.
  - 8. You will be prompted to restart Windows. Click "Yes".

#### 4.2 Local PC Configuration in Windows 2000

1. In the Windows task bar, click the "Start" button, point to "Settings", and then

click "Control Panel".

- 2. Double-click the "Network and Dial-up Connections" icon.
- In the "Network and Dial-up Connections" window, right-click the "Local Area Connection" icon, and then select "Properties".
- 4. Highlight "Internet Protocol (TCP/IP)", and then click "Properties".
- 5. In the "Internet Protocol (TCP/IP) Properties" dialog box, set the IP address as 192.168.1.x (x can be a decimal number from 2 to 254.), and the subnet mask as 255.255.255.0 and the default gateway as 192.168.1.1. Then click "OK".
- Configure the "DNS" tab if necessary. For information on the IP address of the DNS server, please consult with user's ISP.
- 7. Click "OK" twice to confirm and save user's changes.

### **5** Quick Setup of the Router

In order to use the web-based management software, it will be necessary to use a computer that occupies the same subnet as the Router. The simplest way to do this for many users will be to use DHCP server that is enabled by default on the Router.please make sure the wan connection is ok.

Internet Connection Setup Wizard will guide you through a step-by-step process to configure your router and connect to the Internet.ill guide you through a step-by-step process to configure your router and connect to the Internet.

(1) Launch a web browser, such as Internet Explorer, and then use http://192.168.1.1 to log on to the setting pages. Enter username "admin"and password "admin", then click "OK".



(2) After log on ,you will see the following page. click next button. When WAN connection is ok, please press next. When the wan connection is bad, please check your cable.

1		2		3
	·	×		***
Velcome to the In This page will guide Internet.	ternet Connection	on Setup Wizard	onfigure your route	r and connect to the
Van Port Status				
Connected				
		Next		

(3) The WAN connection type will appear, the quick setup supports two popular mode PPPoE, DHCP(Dynamic IP) to connect to the internet, If the connection type is PPPoE, enter the username and password provided by your ISP. If the connection type is dynamic IP, the router will obtain an IP automatically from you ISP. Select a wifi interface. 2.4 GHz or 5 GHz. please enter SSID and Password for wireless network Then click"next".

Internet Connection T	уре	
PPPOE	O Automatic Configuration - DHCP	
Username :		
Password :	(Enter at least 8 characters for password)	
Wireless Setup		
2.4G WiFi:	🖲 WiFi Enable 🔿 WiFi Disable	
2.4G SSID :	Kasda AP2.4g	
2.4G Password :	(Nothing or enter 8 to 64 characters for the WiFi password)	
5G WiFi :	🖲 WiFi Enable 🔿 WiFi Disable	
5G SSID :	Kasda AP	
5G Password :	(Nothing or enter 8 to 64 characters for the WiFi password)	

(4)The Internet Connection Setup Wizard is complete. Click the Apply button to save and apply your settings.



After the configuration above, Now you can surf the Internet.

### 6 Web-based basic Management Guide

This chapter will introduce how to configure your router in detail, the home page is as shown. From home page, you can find basic & Advanced Setup option on the top router home configuration page. Basic menu has two options ,one is home and the other is administration .Below the home menu, there are two options: home & parent control.



#### 6.1 home page basic setting

#### 6.1.1 Network (WANSettings)

KA1750 supports three types WAN connection. They are DHCP, Static IP, PPPOE, Select any of them you will be able to configure the corresponding connection

of WAN. Click the icon , the wan setup page will appear, as shown, you can configure the IP WAN parameters

WAN Setup	
WAN Connection	
Connection Type: Username: Password:	PPPoE V
Save	Close

 $\diamond$  DHCP connection type

If your ISP provides the DHCP service, please choose Dynamic IP type, and the Router will automatically get IP parameters including IP address, Subnet Mask, Default Gateway, from your ISP. You can see the page as follows .,

WAN Setup	
WAN Connection	
Connection Type:	Automatic Configuration - DH
Save	Close

Click the **Save Settings** button to save your settings.

#### ♦ Static IP

If your ISP provides a static or fixed IP Address, Subnet Mask, Gateway and DNS setting, select Static IP. The Static IP settings page will appear.

WAN Setup	
WAN Connection	
Connection Type:	Static IP
IP Address:	0.0.0.0
Subnet Mask:	0.0.0.0
Default Gateway:	0.0.0.0
DNS 1:	0.0.0.0
DNS 2 (Optional):	0.0.0.0
DNS 3 (Optional):	
Save	Close

IP Address: Enter the IP address in dotted-decimal notation provided by your ISP.

**Subnet Mask:** Enter the subnet Mask in dotted-decimal notation provided by your ISP, usually is 255.255.255.0.

**Default Gateway**:(Optional) Enter the gateway IP ddress in dotted-decimal notation provided by your ISP.

**DNS1/DNS2(Optional) /DNS3(Optional)** : Enter one or two DNS addresses in dotted-decimal notation provided by your ISP.

Click the **Save** button to save your settings.

♦ PPPOE

If your ISP provides a PPPoE connection, select PPPoE option. And you should enter the following parameters.

WAN Setup	
WAN Connection	
Connection Type: Username: Password:	PPPoE V
Save	Close

User Name/Password - Enter the User Name and Password provided by your ISP. These fields are case-sensitive.

Click the **Save** button to save your settings.

#### 6.1.2 LAN Settings



Click (any lan port is OK) icon, you can configure the IP parameters of the LAN

on the screen as below.

Network Set	up
Router IP	
Local IP Address:	192 . 168 . 1 . 1
DHCP Settings:	
DHCP Server:	Enabled Obisabled
Start IP Address:	192. 168. 1. 100
End IP Address:	192. 168. 1. 150
	Save Close

**Local IP Address**:Enter the IP address of your Router or reset it in dotted-decimal notation (factory default: 192.168.1.1).

**DHCP Server:**Enable or Disable the DHCP server. If you disable the Server, you must have another DHCP server within your network or else you must configure the computer manually.

**Start IP Address:**Specify an IP address for the DHCP Server to start with when assigning IP addresses. 192.168.1.100 is the default start address.

End IP Address:Specify an IP address for the DHCP Server to end with when assigning IP

addresses. 192.168.1.150 is the default end address.

Click the Save button to save your settings.

Note:

- 1) If you change the IP Address of LAN, you must use the new IP Address to log in the Router.
- 2) If the new LAN IP Address you set is not in the same subnet, the IP Address pool of the DHCP server will change accordingly at the same time, while the Virtual Server and DMZ Host will not take effect until they are re-configured.

#### 6.1.3 Wireless Settings



icon, you can configure the basic settings for the wireless network of

2.4GHz or 5GHz on this page.

Wireless Settings	
Wireless Interface Wireless Enable	2.4GHz Wireless      ✓     Enabled      Disabled
2.4G SSID	Kasda AP2.4g
2.4G Password	
	(Nothing or enter 8 to 64 characters for the WiFi password)
Sa	Close

Wireless interface: please select 2.4GHz or 5GHz wireless depending on your application.

Wireless enable : Enable or disable the Wirless function here.

**Network Name (SSID)** : Also called the SSID. Enter a value of up to 32 characters. The same name must be assigned to all wireless devices in your network .

Wireless password : nothing or enter 8~64 characters for the wifi password.

Click the **Save** button to save your settings.

#### 6.2 Parental Control

Parental control allows you to set the time limit for a client's network usage.

Home	Parental Control Enable Parent Control Parental Controls Lists	○ Enabled			
Home	Name	Local MAC	Time Settings	Add / Delete	
			0	+	
Parent Control	No data in table.				
	_	Save	Cancel	]	

- 1. In the [Service Name] column, select the client whose network usage you want to control. You may also key in the clients MAC address in the [Local MAC] column.
- 2. In the [Add / Delete] column, click the Edit icon.
- 3. Set up allowed time limits in the [Time Settings] map. Drag and drop to desired day/time.

#### 6.3 Administration

#### 6.3.1 Time setting

This page allows you to set the time manually or to configure automatic time synchronization. The Router can automatically update the time from an NTP server via the Internet.

Mary and	Time Setting	
Administration	Time Config	
1 1	Current Time:	Thu, 01 Jan 1970 00:27:07 -0800
Time Setting	Time Zone	UTC-08:00 Pacific Time
	Time Servers	Default
Password		0.pool.ntp.org, 1.pool.ntp.org 2.pool.ntp.org
Backup/Restore/Reset		

Time Zone - Select your local time zone from this pull-down list.

**Time Servers** - Select the time servers. You can choose the place where you are. Or select **Custom** to configure the servers by yourself.

Time will show up on the page(Advanced--Status-Status,Current Time).

Note: After you have made your changes, Click Save to apply the changes.

#### 6.3.2 Password:

Administration	Router Access Password Setting		
1 P	Router Username:	admin	
Time Setting	Router Password: Re-Enter to Confirm:	••••	
Password		Save Cancel	
Backup/Restore/Reset			
Firmware Update			

It is strongly recommended that you change the factory default user name and password of the Router. All users who try to access the Router's web-based utility will be prompted for the Router's user name and password.

#### 6.3.3 Backup/restore/reset

Administration	Backup/Restore/F	Reset Setting
1.1	Backup setting	Back Up
Time Setting	Restore setting	Upload
Password	Reset Factory Defaults	Reset Defaults
Backup/Restore/Reset		
Firmware Update		

Click the **Backup** button to save all configuration settings to your local computer as a file. Click the **Browse** button to find the configuration file which you want to restore.

Click the **Upload** button to update the configuration with the file whose path is the one you have input or selected in the blank.

Click the **Reset Defaults** button to reset all configuration settings to their default values.

The default User Name: admin

The default Password: admin

The default Subnet Mask: 255.255.255.0

Note: All changed settings will be lost when defaults are restored.

#### 6.3.4 Firmware update

	Home   Administration
Administration	Firmware Upgrade         Please select a file to upgrade:       浏览
Time Setting	Start Upgrade Warning: Upgrading firmware may take a few minutes; please don't turn off the power or press the reset button.
Password	0% Upgrade must NOT be interrupted!!
Backup/Restore/Reset	
Firmware Update	

Click **Browse/Choose** and select the firmware upgrade file. Then click **Start Upgrade**. **Warning:** Upgrading firmware may take a few minutes; please don't turn off the power or press the reset button.

Upgrade must not be interrupted!!

### 7 Web-based Advance Management Guide

This chapter will introduce how to configure your router advanced, behind the advanced menu, there are six options :status, setup, wireless, service, security, administration.

The Status page displays the Router's current status and wan configuration.



#### 7.1 Setup

Click advanced menu, and then click setup, you can set up WAN, LAN, IPV6, Advanced Routing

#### 7.1.1 WAN setup

Some Internet Service Providers (ISPs) will require that you enter specific information, such as User Name, Password, IP Address, Default Gateway Address, or DNS IP Address. This information can be obtained from your ISP, if required.

	WAN Connection		21
the states	WAN Connection Type:	PPPoE	~
	Username:		
WAN	Password:		
LAN	Service Name (Optional):		
LAN	O Connect on Demand: Max I	dle Time 1 Minute.	
IPv6	Keep Alive: Redial Period	30 Second.	
	Host Name (Optional):		
anced Routing	Domain Name (Optional):		
	MTU:	Auto V Size: 1492	
	MAC Address Clone		
	Enable:	O Enabled	ed
	MAC Address:	00 : OE : F4 :	EC : 34 : 87
		Clone My PC's MAC	

- ♦ WAN Connection Type
- (1) Automatic Configuration DHCP

If you connect using a dynamic IP address or cable modem, keep the default: Automatic Configuration - DHCP.

(2) Static IP.

To use a fixed IP address to connect to the Internet, select Static IP.

Internet IP Address – Enter the IP address provided by your ISP.

Subnet Mask – Enter the subnet mask provided by your ISP.

Default Gateway – Enter the gateway IP address provided by your ISP.

**DNS 1-3** – Enter the DNS (Domain Name System) server IP address(es) provided by your ISP.

(3) PPPoE

If you use a DSL or PPPoE connection, select PPPoE.

**Username** – Enter the username provided by your ISP. Password – Enter the password provided by your ISP.

Service Name (Optional) – Enter the Service Name, if required by your ISP.

**Connect on Demand:** Max Idle Time – You can configure the router to disconnect your Internet connection after a specified period of inactivity (Max Idle Time). If your Internet connection has been terminated due to inactivity, Connect on Demand enables the router to automatically re-establish your connection as soon as you attempt to access the Internet again. If you want your Internet connection to remain active at all times, enter 0 in the Max Idle Time field. Otherwise, enter the number of minutes you want to have elapsed before your Internet connection terminates. The default is 15 minutes.

**Keep Alive**: Redial Period – This option keeps you connected to the Internet indefinitely, even when your connection sits idle. To use this option, click the radio button next to Keep Alive. The default Redial Period is 30 seconds (in other words, the router will check the Internet connection every 30 seconds).

**Host Name (Optional)** – Enter a host name for the Router, if required by your ISP.

**Domain Name (Optional)** – Enter a domain name for the Router, if required by your ISP.

**MTU** – MTU is the Maximum Transmission Unit. It specifies the largest packet size permitted for Internet transmission. Keep the default setting, Auto, to have the router select the best MTU for your Internet connection. To specify a MTU size, select Manual, and enter the value desired (default is 1400). You should leave this value in the 1200 to 1500 range.

#### ♦ MAC Address Clone

The router's MAC address is a 12-digit code assigned to a unique piece of hardware for identification. Some ISPs require that you register the MAC address of your network card/adapter, which was connected to your cable or DSL modem during installation.

Enable:	Enabled     Disabled	
MAC Address:	00 : 0E : F4 : EC : 34	: 87
	Clone My PC's MAC	
	Clone My PC's MAC	
	Save Cancel	

To clone your network adapter's MAC address onto the router, select Enable and enter your adapter's MAC address in the Clone WAN MAC field or click Get My PC's MAC to fill in the MAC address of your PC you are using. Then save your changes by clicking on the Apply button.

#### 7.1.2 LAN setup

	Status   Setu	p   Wireless   Service   Security
Setup	Network Setup Router IP	
and the	Local IP Address:	192 . 168 . 1 . 1
WAN	Subnet Mask:	255.255.255.0 🗸
	Network Address Serv	er Settings(DHCP)
LAN	DHCP Server:	Enabled Obisabled DHCP Reservation
IPv6	Start IP Address: Maximum Number of U	192.168.1. 100 Jsers: 51
dvanced Routing	IP Address Range: Client Lease Time:	192.168.1.100 to 150 0 minutes (0 means one day)
		Save Cancel

#### $\diamond$ Router IP

Local IP Address / Subnet Mask: This is the router IP Address and Subnet Mask as seen on the internal LAN. The default value is 192.168.1.1 for IP Address and 255.255.255.0 for Subnet Mask.

#### ♦ Network Address Server setting(DHCP)

**DHCP Server** – Keep the default, Enable, to enable the router's DHCP server option. If you already have a DHCP server on your network or you do not want a DHCP server, then select Disable.

**Maximum DHCP Users** – Enter the maximum number of PCs that you want the DHCP server to assign IP addresses to. The absolute maximum is 253, possible if 192.168.1.2 is your starting IP address.

**Client Lease Time** – Enter the length of time, in minutes, that a DHCP client will be allowed to use a dynamic IP address. The default is 0 minutes, which means one day. After this time is up, the client will be automatically assigned a new dynamic IP address, or the lease will be renewed.

**DHCP Reservation:**DHCP Reservation is usefull for controlling access of specific computers in the LAN.

#### 7.1.3 IPV6

IPv6 Setup	
WAN Set	
IPv6 WAN Network Prefix:	2001:db0:1:0::/64
LAN Set	
IPv6 Mode:	Disabled
IPv6 LAN Network Prefix:	2001:db8:1:0::/64
IPv6 DNS Server:	
IPv6 6to4 subnet ID:	0
	Save Cancel

♦ WAN Set

IPv6 WAN Network Prefix – Sets the IPv6 Network Prefix for WAN.

♦ LAN Set

IPv6 LAN Network Prefix – Sets the IPv6 Network Prefix for LAN.

**IPv6 DNS Serve**r – Sets the IP addresses of the DNS servers to use for resolving host names.

**IPv6 6to4 subnet ID** – Sets the 6to4 subnet ID(0-65535).

#### 7.1.4 Advanced Routing Setup

Setup	Advanced Routing Static Routing	
1	Route Entries:	1() V Delete This Entry
WAN	Enter Route Name: Destination LAN IP:	
LAN	Subnet Mask: Gateway:	0 . 0 . 0 . 0 0 . 0 . 0 . 0
IPv6	Interface:	LAN & Wireless  Show Routing Table
vanced Routing		1

#### Static Routing

A static route is a pre-determined pathway that network information must travel to reach a specific host or network.

To set up a static route between the router and another network:

1.Select a number from the Static Routing drop-down list.

2.Enter the following data:

• Destination IP Address – The Destination IP Address is the address of the network or host to which you want to assign a static route.

• Subnet Mask– The Subnet Mask determines which portion of an IP address is the network portion, and which portion is the host portion.

• Gateway – This is the IP address of the gateway device that allows for contact between the router and the network or host.

3.Depending on where the Destination IP Address is located, select LAN & WLAN or WAN from the Interface drop-down menu.

4.Click the Apply button to save your changes. To cancel your unsaved changes, click the Cancel button. For additional static routes, repeat steps 1-4.

To delete a static route entry:

1.From the Static Routing drop-down list, select the entry number of the static route.

2.Click the Delete This Entry button.

3.To save a deletion, click the Apply button. To cancel a deletion, click the Cancel button.

#### 7.2 Wireless Setup

#### 7.2.1 Wireless Basic Settings

Physical Interface	
Wireless Interface: Network Mode: Network Name(SSID): Country:	2.4GHz Wireless         5GHz Wireless         Mixed         Kasda AP2.4g         UNITED STATES
Channel:	11u 🗸
Bandwidth:	40 MHz 🗸
SSID Broadcast:	Enabled Obisabled
	Save Cancel

• Network Mode – If you have Wireless-G and 802.11b devices in your network, then keep the default setting, Mixed. If you have only Wireless-G devices, select G-Only. If you would like to limit your network to only 802.11b devices, then select B-Only. If you want to disable wireless networking, select Disable. Note that B-Only mode is not supported under WDS.

• Network Name(SSID) – Enter the name of your wireless network.

• **Country** – Select your Country from the pull-down list. This field specifies the Country where the wireless function of the Router can be used. It may be illegal to use the wireless function of the Router in a region other than one of those specified in this filed. If your country or region is not listed, please contact your local government agency for assistance.

• **Channel** – This field determines which operating frequency will be used. It is not necessary to change the wireless channel unless you notice interference problems with another nearby access point. If you select auto, then AP will choose the best channel automatically.

• **Bandwidth** – The bandwidth of the wireless channel.

• **SSID Broadcast** – When wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast by the router. To broadcast the router SSID, keep the default setting, Enable. If you do not want to broadcast the router SSID, then select Disable

#### 7.2.2 Guest Access

Use the Guest Access feature to provide guests visiting your home with Internet access only. The guest network is a wireless network separate from your local network.

Wireless	Guest Interface	
	Guest Access	
	Allow Guest Access:	⊖ yes ● No
Basic Settings	Guest Network Name:	Kasda-guest
	SSID Broadcast:	Enabled      O Disabled
Guest Network	Total Guests Allowed:	8 🗸
	Access Intranet:	O Yes 🖲 No
Security	Security	
WPS	Security Mode:	Disabled V
rofessional Settings		Save Cancel

• Allow Guest Access – To allow Internet access through a guest network, select yes.

• Guest Network Name – The name of the guest network is displayed.

• **Total Guests Allowed** – Select the number of guests you want to allow on your guest network.

• **SSID Broadcast** – When wireless devices survey the local area for wireless networks to associate with, they will detect the SSID (wireless network name) broadcast by the Router. To broadcast the SSID of the guest network, keep the default, Enabled.

#### 7.2.3 Security

Nr.	Wireless Security	/
vvireless	Physical Interface wl0	SSID[Kasda AP]
Basic Settings	Security Mode:	Disabled WEP 802.1X WPA WPA-PSK WPA2
Guest Network		WPA2-PSK
Security		

You can select one of the following security options:

• Disabled – The wireless security function can be enabled or disabled. If disabled, the wireless stations will be able to connect the Router without encryption. It is recommended strongly that you choose one of following options to enable security.

- WEP Select 802.11 WEP security.
- WPA/WPA2 Personal Select WPA based on pre-shared passphrase.
- WPA/WPA2 Enterprise Select WPA based on Radius Server.

Each security option has its own settings as described follows.

```
♦ WEP
```

Select a level of WEP encryption.

• Passphrase – Enter a passphrase to automatically generate WEP keys. Then click Generate.

- Key 1 If you did not enter a passphrase, enter the WEP key(s) manually.
- Key 2 If you did not enter a passphrase, enter the WEP key(s) manually.

#### WPA/WPA2 - Enterprise

Version - You can select one of following versions,

- WPA Wi-Fi Protected Access.
- WPA2 WPA version 2.

• RADIUS Server – Enter the IP address of the RADIUS server.

• RADIUS Port – Enter the port number of the RADIUS server. The default is1812.

- Shared Key Enter the key shared between the Router and the server.
- ♦ WPA/WPA2 Personal(WPA-PSK/WPA2-PSK)

Version - You can select one of following versions,

- WPA-PSK Pre-shared key of WPA.
- WPA2-PSK Pre-shared key of WPA2.

• PSK Password –You can enter ASCII or Hexadecimal characters. For Hexadecimal, the length should be between 8 and 64 characters; for ASCII, the length should be between 8 and 63 characters.

#### 7.2.4 WPS Setup

Wireless	Wi-Fi Protected	Setup(WPS)
1 P	WPS Status:	Disabled Enable WPS
Basic Settings	Method One: Press	the client's WPS button and then click the Push Button.
	Push Button:	PBC
Guest Network	Method Two: Enter	the client's PIN number and then click the Register button.
Security	Client's PIN:	Register
	Method Three: Ente	r Router's PIN number if the client ask.
WPS	Router's PIN:	19222486

Wi-Fi Protected Setup(WPS)

WPS function will help you add a new device to the network quickly. If the new device supports Wi-Fi Protected Setup and is equipped with a configuration button, you can add it to the network by pressing the configuration button on the device and then press the button on the Router within two minutes. The status LED on the Router will light blue for five minutes if the device has been successfully added to the network. If the new device supports Wi-Fi Protected Setup and the connection way using PIN, you can add it to the network by entering the Router's PIN.

• WPS Status – Enable or disable the WPS function here.

• Push Button – This button's function is same to the physical button on the router.

• Client's PIN – If the client supports the connection way by entering its PIN.Enter the Client's PIN.Click Register button to connect the client.

• Router's PIN – The current value of the Router's PIN displayed here.

#### 7.2.5 Wireless Access Setup

recess three three	er i	
MAC Restrict Mode	e: Disabled 🗸	
AC filter list (Ma	x Limit : 32)	
	MAC Address List	Add / Delete
		+
	No data in tab	ile

#### ♦ MAC Filter

The Wireless MAC Address Filtering feature allows you to control the wireless stations accessing the AP, which depend on the station's MAC addresses.

• MAC Restrict Mode – To disable the Wireless MAC Address Filters feature, keep the default setting, Disable.

- First, you must decide whether the specified wireless stations can or cannot access the AP. If you desire that the specified wireless stations can access the AP, please select Allow, otherwise, select Deny

♦ MAC Address List – The wireless station's MAC address that you want to access.

#### 7.2.6 WDS Setup

Wireless Distribut	ion System	
WDS Settings		
Mode:	Access Point 🗸	
Bridge Restriction:	Enabled V	
Bridges:	Peer MAC Address	Link Status
	Save	Cancel

WDS (Wireless Distribution System) is a Wireless Access Point mode that enables wireless bridging in which WDS APs communicate only with each other only (without allowing for wireless clients or stations to access them), and/or wireless repeating in which APs communicate both with each other and with wireless stations (at the expense of half the throughput).

• Mode – Selecting Wireless Bridge disables access point functionality. Only wireless bridge (also known as Wireless Distribution System or WDS) functionality will be available. Selecting Access Point enables access point functionality. Wireless bridge functionality will still be available and wireless stations will be able to associate to the AP.

• Bridge Restriction – Selecting Disabled disables wireless bridge restriction. Any wireless bridge (including the ones listed in Remote Bridges) will be granted access. Selecting Enabled enables wireless bridge restriction. Only those bridges listed in Remote Bridges will be granted access.

• Bridges – Enter the peer wireless MAC addresses of any wireless bridges that should be part of the wireless distribution system (WDS).

We will describe how to configure WDS to connect 2 ROUTERs.

1. Make these 2 routers same channel (not Auto) and security mode and passphrase in Wireless – Basic Settings & wireless security.

Physical Interface	
Network Mode:	Mixed V
Network Name(SSID):	Kasda AP
Country:	UNITED STATES
Channel:	Auto 🗸
Bandwidth:	20MHz in 2.4G Band and 40MHz in 5G Band 🗸
SSID Broadcast:	Enabled      Disabled
	Save Cancel
Wireless Securi	ty
Physical Interface w	0 SSID[Kasda AP]
Security Mode:	WPA-PSK V
Passphrase:	
J	Save Cancel

2. ROUTER1 can use default IP address 192.168.1.1, and ROUTER2 should change the IP address to other IP address but in same segment like 192.168.1.2. And user should disable ROUTER2's DHCP function in Setup– LAN page.

Network Setup	
Router IP	
Local IP Address:	192 . 168 . 1 . 1
Subnet Mask:	255.255.255.0 🗸
Network Address Server	Settings(DHCP)
DHCP Server:	Enabled Obisabled DHCP Reservation
Start IP Address:	192.168.1. 100
Maximum Number of Use	ers: 51
IP Address Range:	192.168.1.100 to 150
Client Lease Time:	0 minutes (0 means one day)
	Save Cancel

3. ROUTER 1 : Go to advance=>wireless=>WDS page, Select Access Point in Mode. Add ROUTER 2's wireless interface MAC address (BSSID) to ROUTER 1's Bridges:. And then Click save button.

Mode:	Access Point	
Bridge Restriction:	Enabled V	
Bridges:	Peer MAC Address	Link Status
_		
	Save	Cancel

4. ROUTER 2 : Go to Setup=>WLAN=>WDS page, Select Wireless Bridge in Mode. Add ROUTER 1's wireless interface MAC address (BSSID) to ROUTER 2's AP MAC Address. And then Click save.

Wireless Distribut	tion System	
WDS Settings		
Mode:	Wireless Bridge 🗸	
Bridge Restriction:	Enabled V	
Bridges:	Peer MAC Address	Link Status
	Save	Cancel

If you can access the Internet from ROUTER 1, then you can set the PC which connect with ROUTER 2 as this: IP Address: 192.168.1.x Subnet mask: 255.255.255.0 Gateway: 192.168.1.1 DNS: 192.168.1.1 So you can access the Internet from ROUTER 2.

#### 7.3 Service – QoS Setup

0-0 (0		
Qos (Quant	y of Service)	
Wireless		
WMM Support:	• Er	nabled Obisabled (Default: Enabled)
No Acknowledge	ement: O En	nabled
Internet Access	Priority	
🔿 Enabled 🖲 🛙	Disabled	
Bandwidth		
Upstream Band	width: 384	Kbit/s
Downstream Ba	ndwidth: 1500	Kbit/s
Bandwidth c	onfig	
Category		
Applications $\checkmark$		
Applications	MSN Messeng	ger 🗸
Priority	Medium (Reco	ommended)
	Apply	
Summary		
Priority	Name	Information
	Save	Cancel

QoS (Quality of Service)

QoS assigns different levels of priority to specific types of network traffic, so it helps to ensure optimal performance for demanding, real-time applications, such as online gaming, VoIP calls, and video streaming.

#### Wireless

No Acknowledgement – No Acknowledgement – If you want the Router to re-send data if an error occurs, keep the default, Disabled. If you do not want the Router to re-send data if an error occurs, select Enabled.

#### **Internet Access Priority**

QoS is only applied to traffic streams that are uploaded to the Internet.

• Enabled/Disabled – To use the QoS policies you set, select Enabled.

#### Upstream Bandwidth

This option sets the maximum upstream bandwidth of your Internet connection. To allow the Router to detect the maximum, keep the default, Auto. To specify the maximum, select Manual. Then enter the appropriate bandwidth and select Kbps or Mbps.

#### Category

Select the appropriate category. Go to the instructions for your selection.

• Applications – Select the appropriate application. If you select Add a New Application, follow the instructions in the Add a New Application section.

• Priority – Select the appropriate priority.

Click Apply to save your changes.

#### Summary

This lists the QoS entries you have created for your applications and devices.

#### 7.4 Security Setup

#### 7.4.1 Firewall setup

14	Firewall
Security	Firewall Protection
1 1	IPv6 SPI Firewall Protection:
Firewall	IPv4 SPI Firewall Protection:
	Internet Filter
IPv6 Firewall	Filter Anonymous Internet Requests(ping)
	Filter Multicast
Internet Access Policy	Filter Internet NAT Redirection for IPv4 Internet Only
URL Filter	Filter IDENT (Port 113)
	Web Filter
Remote Access	Proxy i java ActiveX Cookies
DoS	Save Cancel

#### Internet Filter

• Filter Anonymous Internet Requests – Stops the router from responding to "pings" from the WAN.

• Filter Multicast – Prevents multicast packets from reaching the LAN.

• Filter Internet NAT Redirection for IPv4 Internet Only – Prevents hosts on LAN from using WAN address of router to contact servers on the LAN (which have been configured using port redirection).

• Filter IDENT (Port 113) – Prevents WAN access to port 113.

#### Web Filter

- Proxy Blocks HTTP requests containing the "Host:" string.
- Java Blocks HTTP requests containing a URL ending in ".js" or ".class".

• ActiveX – Blocks HTTP requests containing a URL ending in ".ocx" or ".cab".

• Cookies – Identifies HTTP requests that contain the "Cookie:" string and mangle the cookie. Attempts to stop cookies from being used.

works with Innovation	Status   Setup	)   Wireless   Service	Security   Admin
Security	Firewall - URL Filt Basic Config	ter	
- Br-	Enable URL Filter:	○ Enabled	
Firewall	URL Filter List		
		URL Filter List	Add / Delete
IPv6 Firewall			+
and the second se		No data in table.	
met Access Policy URL Filter		Apply Car	ncel

## 7.4.2 URL Setup

Enter the keywords for the sites that you want to block. For example, enter "XXX" in the list The URL filter will block the http://www.abcXXX.com, http://www.XXXbbb.com and so on.

#### 7.4.3 Remote Access Setup

This feature allows you to manage your Router from a remote location via the Internet or Internat.

Security	Management Access		
Firewall	Access via: Remote Management Access	● HTTP ○ HTTPS	
IPv6 Firewall	Remote Management:	Enabled      Disabled	
Internet Access Policy	Access via: Remote Upgrade:	Enabled      Disabled	
URL Filter	Allowed Remote IP Address:	Any IP Address     .	
Remote Access	Remote Management Port:	80	
DoS		Save Cancel	

#### 7.4.4 DoS

A "denial-of-service" (DoS) attack is characterized by an explicit attempt by hackers to prevent legitimate users of a service from using that service.

Socurity	Denial of Service(DoS)
Security	DoS Setting
	Enable DoS Prevention
Firewall	✓ Whole System Flood: SYN
	✓ Whole System Flood: FIN
IPv6 Firewall	✓ Whole System Flood: UDP
Internet Assess Deliver	✓ Whole System Flood: ICMP
Internet Access Policy	TCP/UDP PortScan
	✓ ICMP Smurf
ORL Filter	IP Land
	✓ IP Spoot
Remote Access	✓ IP TearDrop
	Ping Of Death
DoS	
	Select ALL Clear ALL

• Enable DoS Prevention – Enable or disable DoS Prevention. And choose what you want.

#### **Appendix:** Frequent Asked Questions

- Q: None of the LEDs are on when user power on the router?
- A: Please make sure what user use is the power adaptor attached with the router package, and check the connection between the AC power and router.
- Q: LAN LED does not turn on after connect Ethernet cable?
- A: Please make sure Ethernet cable is connected hub/PC and router correctly. Then please make sure the PC/hub have been power on.

Please make sure that user use parallel network cable to connect UpLink port of hub, or use parallel network cable to connect PC. If connect normal port of hub (not UpLink port), user must use cross-cable. Please make sure that user's network cables meet the networking requirements above.

- Q: PC cannot access the Router?
- A: Please make sure that all devices communicating with the device must use the same channel (and use the same SSID). Otherwise user's PC will not find the wireless Router.
- Q: PC cannot access the Internet?
- A: First check whether PC can ping the interface Ethernet IP address of this product successfully (default value is 192.168.1.1) by using ping application. If ping application fails, please check the connection of Ethernet cable and check whether the states of LEDs are in gear.

If the PC uses private IP address that is set manually (non-registered legal IP address), please check:

- 1. Whether IP address of the PC gateway is legal IP address. Otherwise please use the right gateway, or set the PC to Obtain an IP address automatically.
- 2. Please confirm the validity of DNS server appointed to the PC with ADSL operator. Otherwise please use the right DNS, or set the PC to Obtain an IP address automatically.
- 3. Please make sure user have set the NAT rules and convert private IP address to legal IP address. IP address range of the PC that user specify should meet the setting range in NAT rules.
- 4. Central Office equipment may have problem.
- 5. The country or the wireless network type user selected is wrong.

- Q: PC cannot browse Internet web page?
- A: Please make sure DNS server appointed to the PC is correct. User can use ping application program to test whether the PC can connect to the DNS server of the ADSL operator.

If the cause is not above given, please contact user's local service provider!