

User's Manual

300Mbps Dual-Band 802.11n Wireless Gigabit Router

▶ WDRT-731U



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Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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:

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

FCC Caution:

To assure continued compliance, (example-use only shielded interface cables when connecting to computer or peripheral devices) 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
- (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 the equipment.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

R&TTE Compliance Statement

This equipment complies with all the requirements of DIRECTIVE 1999/5/CE OF THE EUROPEAN PARLIAMENT AND THE COUNCIL OF 9 March 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE).

The R&TTE Directive repeals and replaces in the directive 98/13/EEC (Telecommunications Terminal Equipment and Satellite Earth Station Equipment) As of April 8, 2000.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

National Restrictions

This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC) without any limitation except for the countries mentioned below:

Country	Restriction	Reason/remark
Bulgaria	None	General authorization required for outdoor use and public service
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
Italy	None	If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian	None	Only for indoor applications
Federation		

Note: Please don't use the product outdoors in France.

WEEE regulation



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

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Chapter 1. Product Introduction

1.1 Package Contents

Thank you for choosing PLANET WDRT-731U. Before installing the router, please verify the contents inside the package box.





If there is any item missed or damaged, please contact the seller immediately.

1.2 Product Description



2.4G & 5G Simultaneous Dual Band Wireless Connectivity

Since there are more and more wireless applications and electric devices using the radio frequency of 2.4GHz, the wireless channel of 2.4GHz has been already too crowded for clients to enjoy the high-speed wireless connection. In order to avoid the wireless interference between each other, PLANET WDRT-731U provides users the radio frequency of 5GHz for watching HD videos or playing online games additionally. At the same time, it enables other users still surf the Internet via the original radio frequency of 2.4 GHz. The WDRT-731U is just like 2 totally independent Access Points in one device for you.



Multiple Network Technologies for Incredibly 600Mbps High-Speed Connection

The WDRT-731U supports IEEE 802.11a/b/g/n Dual Band standard with 2T2R antenna technology, therefore it can provide the wireless speed up to 300 + 300Mbps which is 12 times faster than that of traditional 11g Access Point. Moreover, the WDRT-731U is equipped with all Gigabit Ethernet Ports. Compared with general wireless routers, the WDRT-731U offers faster transmitting speed and more convenient method to enable or disable wireless signal.

Fully Support of Wireless Security Encryption

To secure the wireless communication, the WDRT-731U supports up-to-date encryption technology, WPA / WPA2 and WPA-PSK / WPA2-PSK with TKIP/AES. The WDRT-731U supports Wi-Fi Protected Setup (WPS) configuration with PBC/PIN methods to simplify the wireless security settings. By just clicking the WPS button, the secure connection between the wireless AP and wireless client will be built immediately.



WPS (Wi-Fi Protected Setup)

IPTV Pass-through for Video On Demand

The WDRT-731U provides an IPTV-specific port which enables the IPTV Set-Top-Box (STB) connection directly by passing through the LAN port. The IPTV feature makes it possible for users to enjoy online videos on the TV set via Set-Top-Box (STB) through the WDRT-731U while surfing Internet. The IPTV port can also function as a LAN port if IPTV service is not enabled.

More Flexible File Sharing over USB port

The WDRT-731U is built-in with one USB 2.0 port which can be connected to a USB printer or storage device for file sharing. It can recognize the USB printer or storage automatically without user experience. Thus, all clients on the network can share printer or mass storage through the WDRT-731U without complicated network configuration. Via the USB port, it also can output 5V DC power to charge any USB compliant devices.



* Sharing Printer and Mass Storage

Powerful Firewall and Complete Access Control Functions

The WDRT-731U supports NAT function allowing multiple users to access Internet via a single legal IP. It also provides Virtual Server for the specific LAN PC to act as an application server and offer certain service to the clients on the Internet. In addition, the powerful firewall protects your Intranet clients from unauthorized accesses and various kinds of DoS attacks from the Internet. In the aspect of firewall, the WDRT-731U supplies IP-based and MAC-based access control to prevent possible hackers attack.

Easy Setup for Multiple Wireless Modes

The WDRT-731U supports multiple wireless modes including AP, Wireless Bridge, and Repeater, for different network applications. Furthermore, with the built-in Quick Setup function, users can configure the WDRT-731U easily and quickly through a couple of simple steps. It is so easy to apply the WDRT-731U to the existing wired network. The WDRT-731U definitely provides a total network solution for the home and the SOHO users.



Wireless Coverage Plus !

The WDRT-731U is equipped with **5dBi High-Gain** antennas to provide strong signal and excellent performance even in the long range or bad environment. Besides essential wireless sharing for Wi-Fi clients, the WDRT-731U provides **WDS** (Wireless Distribution System) bridge mode to facilitate wireless network deployments and range expanding. It provides more flexibility for users while establishing wireless network.

1.3 Product Features

IEEE Compliant Wireless LAN & Wired LAN

- Compliant with IEEE 802.11a/b/g/n dual-band (2.4G&5G) wireless technology capable up to 300+300Mbps data rate
- Equipped with all Gigabit RJ-45 ports (10/100/1000Mbps) of 1 WAN and 4 LAN ports
- Auto MDI/MDI-X supported
- LAN4 supports IPTV Pass-through enables you enjoy online videos

Fixed-network Broadband Router

- Supported WAN connection types: Dynamic IP/ Static IP / PPPoE / PPTP / L2TP / PPPoE Dual Access
- Supports Dynamic DNS and DHCP Server

Secure Network Connection

- Supports Wi-Fi Protected Setup (WPS)
- Advanced security: 64/128-bit WEP, WPA/WPA2 and WPA-PSK/WPA2-PSK (TKIP/AES encryption)
- Supports NAT firewall, IP / Port / URL-based access control and MAC address Filtering
- Support Dual-SSID to allow users to access different networks through a single AP
- Advanced Networking function for Specific Application
 - Supports Bandwidth Control (QoS) based on different local IP addresses
 - Supports NTP, Virtual Server, UPnP, and DMZ for various networking applications
 - Equipped with one USB port for sharing printers and USB mass storages wirelessly

Easy Installation & Management

- User Friendly Web-based UI with On-line Help
- Remote Management allows configuration from a remote site
- System status monitoring includes DHCP Client List and System Log

1.4 Product Specification

Broduct	WDRT-731U			
Product	300Mbps Dual-Band 802.11n Wireless Gigabit Router			
Hardware Specification				
	WAN Port:	1 x 10/100/100	10/100/1000Mbps Auto MDI/MDI-X RJ45 port	
Interface	LAN Port: 3 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 ports (LAN1~3)			
interiace	IPTV Port:	/ Port: 1 x 10/100/1000Mbps Auto MDI/MDI-X RJ45 port (LAN4)		
	USB Port :	USB 2.0, Type-	A, 5V DC/0.5A Output	
Antonno	Gain:	2 x 5dBi fixed antenna		
Antenna	Orientation:	Omni-directiona	al	
	Reset / WPS	button at rear par	nel	
Reset / WPS Button	■ Pre	ess for about 7 se	conds to reset the device to factory default.	
	■ Pre	ess for 1 second to	o activate WPS function.	
	PWR/SYS, W	/LAN (2.4G & 5G) x 2	
	WAN (Link &	1000Mbps) x 1		
LED Indicators	LAN (Link & 1000Mbps) x 3			
	IPTV (Link & 1000Mbps) x 1			
	USB, WPS			
Material	Plastic			
Dimension (WxDxH)	171.61 x 111.16 x 25.47 mm (W x D x H)			
Weight	250g			
Power Requirement	12V DC, 1A			
Wireless interface Specifi	ication			
Standard	Compliance with IEEE 802.11a/b/g/n			
	Simultaneous	3 2.4 GHz and 5 0	GHz	
Frequency Band	2.4GHz: 2.412~2.484GHz			
	5GHz: 5.180~5.825GHz			
Transmission	Indoor up to 100m			
Distance	Outdoor up to 300m (it is limited to the environment)			
RF Power	2.4GHz:		5GHz:	
(Intentional Radiator)	110: 17±10	IBM 1.5dBm	11a: 12±1.5dBm 11n: 12±1.5dBm	
	11n: 12.5±1.5dBm			
Wireless Management Fe	eatures			
	■ AP			
Wireless Modes				

Encryption Security	 WEP (64/128-bit) WPA-PSK (TKIP) / WPA2-PSK (AES) WPA (TKIP) (WPA2 (AES)) 		
	WPA (TRIP) / WPA2 (AES)		
	Provide vvireless LAN ACE (Access Control List) filtering		
Wireless Security	Wireless MAC address filtering		
	Support WPS (WIFI Protected Setup)		
	Support Dual-SSID (2.4G & 5G)		
Wireless Advanced	AP Isolation: Enable it to isolate each connected wireless clients, to let them		
	cannot access mutually.		
	Support 802.11e WMM (Wi-Fi Multimedia)		
Max. Supported	Wire: 15		
Clients	Wireless: 10		
Router Features			
	Shares data and Internet access for users, supporting following internet		
	access:		
Internet Connection	Dynamic IP Statia ID		
Type			
туре	■ PPTP		
	L2TP		
	PPPoE Dual Access		
	NAT firewall		
Firewall	Built-in NAT server which supports Virtual Server, and DMZ		
	Built-in firewall with IP address filtering, Port filtering, URL filtering, and MAC		
	address filtering		
Routing Protocol	Static Routing		
	Built-in DHCP server supporting static IP address distributing		
	Support UPnP, Dynamic DNS		
LAN	Support Packets Statistics		
	IP-based Bandwidth Control		
	Session Number: Max. 8000		
	Web-based (HTTP) management interface		
System Management	Remote management (WAN Access Control)		
System Management	SNTP time synchronize		
	System Log		
	Windows 7		
OS Compatibility	Windows Vista		
oo oompatibility	Windows XP		
	Mac OS X 10.4 and higher		

Chapter 2. Hardware Installation

Please follow the instructions below to connect WDRT-731U to the existing network devices and your computers.

2.1 Hardware Description

- Dimension: 171.61 x 111.16 x 25.47mm (W x D x H)
- Diagram :







Figure 2-1

2.1.1 The Front Panel

The front panel provides a simple interface monitoring the router. Figure 2-2 shows the front panel of WDRT-731U.



2.1.2 LED Indications

The LEDs on the front panel indicate instant status of port links, wireless data activity, system power; and help monitor and troubleshoot when needed. Figure 2-2 and Table 2-1 show the LED indications of the Wireless Router.



Figure 2-3 WDRT-731U Front Panel

LI (Left to	ED o Right)	STATE	FUNCTION
		On	Device power on
し し	PWR	Flash	The system is working properly
		Off	Device power off

📍 wps		Elach	The system is performing WPS authentication on a client	
		FIASII	device.	
8	50	On	The 5G WiFi is activated	
5GHz	30	Flash	Device is transmitting data wirelessly over 5GHz	
8	246	On	The 2.4G WiFi is activated	
2.4GHz	2.40	Flash	Device is transmitting data wirelessly over 2.4GHz	
		On	Link is established	
₫	1~4	Flash	Packets are transmitting or receiving	
1.44		Off	LAN port is not connected	
		On	Link is established	
🛞 WAN		Flash	Packets are transmitting or receiving	
		Off	WAN port is not connected	
.tı		On	The USB port is correctly connected	
Y	036	Off	The USB port is not connected	

Table 2-1 The LEDs indication

2.1.3 The Rear Panel

The rear panel provides the physical connectors connected to the power adapter and any other network devices. Figure 2-3 shows the rear panel of WDRT-731U.

Rear Panel



Figure 2-4 Rear Panel of WDRT-731U

Interface	Description	
Antenna x 2	Fixed Dual-Band 5dBi Omni Dipole Antennas	
WPS/Reset	 Press the Reset button gently for 1 second and then release it. The system starts to WPS connection. Press the Reset button gently for 7 seconds and then release it. The system restores to the factory default settings. 	
WAN	Connect to the Cable/xDSL Modem, or the Ethernet	
LAN1-4	Connect to the user's PC or network devices	
Power	Connect to the power adapter provided in the package	
Table 2-2 The Interface indication		

2.1.4 The Right Side Panel

WDRT-731U built-in with one USB 2.0 port can be connected to a **USB printer** or **storage for file sharing**. The USB port also output 5V DC power can charge any USB compliant devices.

Right Side Panel



* Sharing Printer and Mass Storage Figure 2-5 USB port of WDRT-731U

Chapter 3. Connecting to the Router

3.1 System Requirements

- Broadband Internet Access Service (Cable/xDSL/Ethernet connection)
- One Cable/xDSL Modem that has an RJ-45 connector (not necessary if the Router is connected directly to the Ethernet.)
- PCs with a working Ethernet Adapter and an Ethernet cable with RJ-45 connectors
- PC of subscribers running Windows 98/ME, NT4.0, 2000/XP, Windows Vista / Win 7, MAC OS 9 or later, Linux, UNIX or other platform compatible with TCP/IP protocols
- Above PC installed with WEB Browser



The Router in the following instructions means PLANET WDRT-731U.
 It is recommended to use Internet Explore 7.0 or above to access the Router.

3.2 Installing the Router

Before installing the Router, make sure your PC is connected to the Internet through the broadband service successfully at this moment. If there is any problem, please contact your local 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.

Step 1. Power off your PC, Cable/xDSL Modem, and the Router.

Step 2. Locate an optimum location for the Router. The best place is usually at the center of your wireless network.

Step 3. Adjust the direction of the antenna. Normally, upright is a good direction.

Step 4. Connect the PC or Switch/Hub in your LAN to the LAN Ports (Yellow ports) of the Router with Ethernet cable, shown in Figure 3-1.



Figure 3-1 Hardware Installation of the WDRT-731U Wireless Router

- **Step 5.** Connect the power adapter to the power socket on the Router, and the other end into an electrical outlet. Then power on the Router.
- **Step 6.** Power on your PC and Cable/xDSL Modem.

Chapter 4. Quick Installation Guide

This chapter will show you how to configure the basic functions of your Wireless Router using **Quick Setup** within minutes.



A computer with wired Ethernet connection to the Wireless Router is required for the first-time configuration.

4.1 Manual Network Setup - TCP/IP Configuration

The default IP address of the WDRT-731U is **192.168.1.1**. And the default Subnet Mask is 255.255.255.0. These values can be changed as you desire. In this guide, we use all the default values for description.

Connect the local PC to the LAN ports of the Router. And then you can configure the IP address for your PC in the following two ways.

■ Obtain an IP address automatically

■ Configure the IP address manually

In the following sections, we'll introduce how to install and configure the TCP/IP correctly in **Windows XP**. And the procedures in other operating systems are similar. First, make sure your Ethernet Adapter is working, and refer to the Ethernet adapter's manual if needed.

4.1.1 Obtain an IP Address Automatically

Summary:

- 1. Set up the TCP/IP Protocol in "Obtain an IP address automatically" mode on your PC.
- 2. Then the WDRT-731U built-in DHCP server will assign IP address to the PC automatically.

1. Install TCP/IP component

- 1) On the Windows taskbar, click the Start button, point to Settings, and then click Control Panel.
- Click the Network and Internet Connections icon, and then click on the Network Connections tab in the appearing window.
- 3) Right click the icon shown below, select Properties on the prompt window.

LAN or High-Spee	LAN or High-Speed Internet		
Local Are Connect	a Connection ed, Firewalled		
Realtek	Disable		
	Status	1	
	Repair		
	Bridge Connections		
	Create Shortcut		
	Delete	1	
	Rename		
	Properties		
		-	

Figure 4-1

4) In the prompt window shown below, double click on the Internet Protocol (TCP/IP).

🕹 Local Area Connection Properties 🛛 🥤	? 🗙		
General Advanced			
Connect using:			
Intel(R) PRO/1000 XT Server Adapte			
This connection uses the following items:			
□ Intel(R) Advanced Network Services Protocol ☑ Image: LLDP Protocol ☑ Image: LLDP Protocol ☑ Image: LLDP Protocol			
I <u>n</u> stall <u>U</u> ninstall P <u>r</u> operties			
Description Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.			
Show icon in notification area when connected Notify me when this connection has limited or no connectivity			
OK Cano	;el		

- Figure 4-2
- 5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

2. Setting IP address automatically

Select **Obtain an IP address automatically**, Choose **Obtain DNS server automatically**, as shown in the Figure below:

Internet Protocol (TCP/IP) Properties				
General Alternate Configuration				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
Obtain an IP address automatical	ly 🔤			
Use the following IP address: —				
IP address:				
S <u>u</u> bnet mask:				
Default gateway:	· · · ·			
⊙ Obtain DNS server address autor	natically			
O Use the following DNS server addresses:				
Preferred DNS server:				
Alternate DNS server:	· · · · ·			
Ad <u>v</u> anced				
	OK Cancel			

Figure 4-3

Now click **OK** to save your settings.

4.1.2 Configure the IP Address Manually

Summary:

- Set up the TCP/IP Protocol for your PC.
- Configure the network parameters. The IP address is 192.168.1.xxx ("xxx" is any number from 2 to 254), Subnet Mask is 255.255.255.0, and Gateway is 192.168.1.1 (The Router's default IP address)
- 1 Select **Use the following IP address** radio button.
- 2 If the Router's LAN IP address is 192.168.1.1, enter IP address 192.168.1.x (x is from 2 to 254), and **Subnet mask** 255.255.255.0.
- 3 Enter the Router's LAN IP address (the default IP is 192.168.1.1) into the **Default gateway** field.
- 4 Select **Use the following DNS server addresses** radio button. In the **Preferred DNS Server** field, you can enter the DNS server IP address which has been provided by your ISP

Internet Protocol (TCP/IP) Properties				
General				
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
Obtain an IP address automatically	,			
Output the following IP address: ──				
IP address:	192.168.1.200			
S <u>u</u> bnet mask:	255 . 255 . 255 . 0			
<u>D</u> efault gateway:	192.168.1.1			
O D_tain DNS server address automatically				
O Use the following DNS server addresses:				
Preferred DNS server:	8.8.8.8			
<u>A</u> lternate DNS server:	8.8.4.4			
	Ad <u>v</u> anced			
	OK Cancel			

Figure 4-4

Now click **OK** to save your settings.

Now, you can run the Ping command in the **command prompt** to verify the network connection between your PC and the Router. The following example is in **Windows XP** OS. Please follow the steps below:

1. Click on **Start > Run**.



Figure 4-5

2. In the run box type "**cmd**" and click OK. (Windows Vista users type "**cmd**" in the Start .Search box.)At the prompt.



U

Open a command prompt, and type *ping 192.168.1.1*, and then press Enter.

 If the result displayed is similar to Figure 4-7, it means the connection between your PC and the Router has been established well.



Figure 4-7 Success result of Ping command

• If the result displayed is similar to Figure 4-8, it means the connection between your PC and the Router has failed.



Figure 4-8 Failure result of Ping command

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your router. Some firewall software programs may block a DHCP request on newly installed adapters.



4.2 Starting Setup in the Web UI

It is easy to configure and manage the WDRT-731U with the web browser.

Step 1. To access the configuration utility, open a web-browser and enter the default IP address http://192.168.1.1 in the web address field of the browser.



Figure 4-9 Login the Router

After a moment, a login window will appear. Enter **admin** for the User Name and Password, both in lower case letters. Then click the **OK** button or press the **Enter** key.

PLANET Networking & Communication	300Mbps Dual Band Wireless Gigabit Router WDRT-731U
	PLANET WDRT-731U Router
	User Name: admin (Default User Name:admin) Password: ••••• (Default Password :admin) Login Cancel

Figure 4-10 Login Window

Default IP Address: 192.168.1.1	
Default User name: admin	
Default Password: admin	



If the above screen does not pop up, it may mean that your web-browser has been set to a proxy. Go to Tools menu>Internet Options>Connections>LAN Settings, in the screen that appears, cancel the Using Proxy checkbox, and click OK to finish it.

After entering the username and password, the Easy Quick Setup page screen appears as Figure 4-11

PLANET Networking & Communication	300Mbps Dual Band Wireless	Gigabit Router WDRT-731U
	Internet Connection Settings OPPPOE ODHCP User: Name: Passwordt	Advanced
	For other connection types, please click "Advanced"-"Network"-"WAN". Wireless Security Settings (2.4G Security Key (Default: 12345678) OK Cancel	

Figure 4-11 WDRT-731U Web UI Screenshot

Step 2. Choose the correct Internet Access method. Please refer to the instructions in the next chapter for configuring the other Broadband types.

User Name:	user
Password:	•••••
For other conr "Advanced"-"N Wireles	nection types, please click letwork"-"WAN". S Security Settings
For other conr "Advanced"-"N Wireles 1.4G Security Ke	ection types, please click letwork"-"WAN". Security Settings

Figure 4-12 Choose Internet Access Method

Step 3. Please enter the User Name, Password and SSID security key and etc. Then click OK button to make the configuration take effect immediately.

⊙pp	POE	Odhcp
User Name:	user	
Password:	•••••	•••
For other conn	ection typ	es, please click
For other conr "Advanced"-"N Wireles	ection typ etwork"-"\ s Secul	es, please click VAN". r ity Settings
For other conr "Advanced"-"N Wireles .4G Security Ke G Security Key	ection typ letwork"-"\ s Secur ey v	es, please click VAN". r ity Settings (Default: 123456

Figure 4-13

Step 4. For more detail network setting and functions configuration, you can click the **Advanced** button to configure your Router.

PLANET Networking & Communication	300Mbps Dual Band Wireless	Gigabit Router WDRT-731U
	Internet Connection Settings OPPPOE ODHCP	Advanced
	User Name: Password:	
	For other connection types, please click "Advanced"-"Network"-"WAN".	
	Wireless Security Settings 2.4G Security Key (Default: 12345678)	
	OK Cancel	

Figure 4-14

Chapter 5. Configuring the Router

This chapter delivers a detailed presentation of router's functionalities and features under 8 main menus below, allowing you to manage the router with ease.

Navigation Menus	~
Device Info	
Network	
Security	
Advanced	
Wireless	
▶ USB	
▶ IPTV	
Tools	

Figure 5-1

During operation, if you are not clear about a certain feature, you can simply click the "Help" button to read all related helpful info.

5.1 Device Info

In this page, you can view information about the current running status of WDRT-731U, including WAN interface, LAN interface, Wireless interface settings and status, and firmware version information.

AN LAN Wireless General	
WAN Status	Connected
Internet Connection Type	Dynamic IP
WAN IP	192.168.100.130
Subnet Mask	255.255.255.0
Gateway	192.168.100.1
DNS Server	192.168.100.1
MAC Address	00:30:4f:34:4b:c0
WAN Traffic	Downlink: 171.42KB Uplink: 5.02KB
Connection Duration:	00:21:13



Figure 5-1-1

This section allows you to view the router's WAN info listed below:

Object	Description	
• WAN Status:	Displays WAN connection status: Disconnected, Connecting or Connected.	
Disconnected:	Indicates that the Ethernet cable from your ISP side is / is not correctly connected to the WAN port on the router or the router is not logically connected to your ISP.	
Connecting:	Indicates that the WAN port is correctly connected and is requesting an IP address from your ISP. Connected: Indicates that the router has been connected to your ISP.	
Internet Connection Type:	Displays current Internet connection type.	
• WAN IP:	Displays WAN IP address.	
Subnet Mask:	Displays WAN subnet mask.	
• Gateway:	Displays WAN gateway address.	
DNS Server:	Displays WAN DNS address.	
WAN MAC Address:	Displays router's WAN MAC address.	
• WAN Traffic:	Displays bandwidth currently used by router in KB/s.	
Connection Duration:	Displays time duration indicating how long the router has been connected to ISP.	
• WAN Traffic Graph:	Displays a graphic presentation of the traffic flow.	

■ LAN

This section allows you to view the router's LAN info listed below:

Device Info		
WAN LAN Wireless General		
IP Address	192.168.1.1	
Subnet Mask	255.255.255.0	
LAN MAC Address	00:30:4f:34:4b:c0	
DHCP Server	Enabled	
NAT Entries/NAT	58 / 8192	

Figure 5-1-2 LAN Information

The page includes the following fields:

Object	Description
• IP Address:	Displays LAN IP address.
Subnet Mask:	Displays LAN subnet mask.
• LAN MAC Address:	Displays router's LAN MAC address.
DHCP Server:	Displays whether DHCP server is enabled or not.
NAT Entries/NAT:	Displays number of used NAT entries and MAX NAT entries.

■ Wireless

This section allows you to view the wireless info listed below:

AN LAN Wireless Gen	eral
	2.4GHz wireless status
Wireless Radio	Enabled
Wireless MAC address	00:30:4f:34:4B:C0
SSID	Default_2.4G
802.11 Mode	11b/g/n mixed mode
Country	US
Channel	Auto
Security Mode	Mixed WPA/WPA2 - PSK
	5GHz wireless status
Wireless Radio	Enabled
Wireless MAC address	00:30:4f:34:4B:C4
SSID	Default_5G
802.11 Mode	11a/n mode
Country	US
Channel	Auto
Security Mode	Mixed WDA WDA 2 DSK

Figure 5-1-3 Wireless information

The page includes the following fields:

Object	Description
Wireless Radio:	Displays whether wireless is enabled or not.
Wireless MAC address:	Displays MAC address of the router's wireless interface
• SSID:	Displays current SSID.
• 802.11 Mode:	Displays currently active network mode.
• Country:	Displays current country.
Channel:	Displays current channel.
Security Mode:	Displays current security Mode.

System Info

This section displays CPU/memory usage, uptime, system time, number of connected client(s) and system version info.

vice Info WAN LAN Wireless General	
CPU Usage	0%
Memory Usage	26%
Up Time	00:56:04
Time	2012-09-27 07:06:20
Connected Client(s)	2
Firmware Version	WDRT-731U_V2.0.1.0_EN_PLA01

Figure 5-1-4 General System information

The page includes the following fields:

Object	Description
CPU Usage:	Displays current CPU usage status
Memory Usage:	Displays current memory usage status.
• Up Time:	Displays uptime.
• Time:	Displays device's time synchronized with Internet or manually set by user.
Connected Client(s):	Displays the number of connected computers.
• Firmware Version:	Displays router's firmware version.

5.2 Network

"**Network**" includes the following four submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

Navigation Menus	~
Device Info	
 Network 	
> LAN	
> WAN	
DHCP	
> WAN Port	

Figure 5-2-1

5.2.1 LAN Settings

LAN Settings			0
			Save
IP Address	192.168.1.1	For Example:192.168.1.1	Restore
Subnet Mask	255 🗸 255 🖌 255 🖌 0 🗸	For Example:255.255.255.0	Help

Figure 5-2-2 LAN settings web page screenshot

The page includes the following fields:

Object	Description
• IP Address:	Router's LAN IP. The default is 192.168.1.1 . You can change it according to your need.
Subnet Mask:	Router's LAN subnet mask.



If you change the device's LAN IP address, you must enter the new one in your browser to get back to the web-based configuration utility. And LAN PCs' gateway must be set to this new IP for successful Internet connection.

5.2.2 WAN Settings

The screen below displays WAN connection status and interface info.

WAN	Settings				
	Interface	Connection Status	Info	Edit	Help
	WAN	Connected	Dynamic IP (IP:192.168.100.130/ 255.255.255.0) Gateway:192.168.100.1	Config	

Figure 5-2-3

Click the "**Config**" button to enter WAN configuration interface. The router supports six Internet connection types, include:

- Dynamic IP
- Static IP
- L2TP
- PPTP
- PPPoE
- PPPoE dual access



WAN IP, whether obtained automatically or specified manually, should NOT be on the same IP net segment as the LAN IP, otherwise, the router will not work properly. In case of emergency, press the hardware "Reset" button.

Dynamic IP (DHCP)

Select this option to let router obtain IP settings automatically from your ISP, if your ISP does not give you any IP information or account information. You don't need to configure any settings for this connection.

WAN Settings		
WAN Settings->WAN		Save
Internet Connection Typ	e Dynamic IP 💌	Restor
MTU	1500	Help

Figure 5-2-4

The page includes the following fields:

Object	Description
Internet	Displays a list of available Internet connection types
connection Type:	
	Maximum Transmission Unit.
• MTU:	The default value is1500.



DO NOT change the factory default MTU value unless necessary as an improper MTU value may degrade your network performance or even lead to network malfunction.

Static IP

If your ISP offers you static IP Internet connection type, select "Static IP" from corresponding drop-down menu and then enter IP address, subnet mask, Primary DNS and secondary DNS information provided by your ISP in corresponding fields.

WAN Settings->WAN		Sa
Internet Connection Type	Static IP	Res
IP Address	192.168.100.130	He
Subnet Mask	255.255.255.0	
Default Gateway	192.168.100.1	
Primary DNS Server	192.168.100.1	
Secondary DNS Server		
МТО	1500	

Figure 5-2-5

The page includes the following fields:

Object	Description
Internet	Displays a list of available Internet connection types
connection Type:	
	Enter the WAN IP address provided by your ISP. Inquire your ISP if
• IF Address.	you are not clear.
Subnet Mask:	Enter WAN Subnet Mask provided by your ISP.
---------------------------	---
Default Gateway:	Enter the WAN Gateway address provided by your ISP.
Primary DNS Server:	Enter the necessary DNS address provided by your ISP.
Secondary DNS Server:	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional.
• MTU:	Maximum Transmission Unit. The default value is1500.



DO NOT change the factory default MTU value unless necessary as an improper MTU value may degrade your network performance or even lead to network malfunction.

PPPoE

Select PPPoE, if your ISP is using a PPPoE connection and provide you with PPPoE user name and password info.

		Sa
WAN Settings->WAN		
Internet Connection Type	PPPOE 🛛	Res
User Name		He
Password		
MPPE		

Figure 5-2-6

Object	Description
Internet connection Type:	Displays a list of available Internet connection types.
• User Name:	Enter the User Name provided by your ISP.
Password:	Enter the password provided by your ISP.
• MTU:	Maximum Transmission Unit. The default value is 1492.



DO NOT change the factory default MTU value unless necessary as an improper MTU value may degrade your network performance or even lead to network malfunction.

PPTP

The PPTP protocol allows you to connect your router to a VPN server.

For example: A corporate branch and headquarter can use this connection type to implement mutual and secure access to each other's resources.

in overenige			
WAN Settings->WAN			
Internet Connection Type	PPTP		Re
PPTP Server IP	pptp_server	(IP address or domain name	e) F
User Name	pptp_user		
Password	•••••		
Address Mode	Static 💌		
IP Address			
Subnet Mask			
Default Gateway			
DNS Server			
Secondary DNS Server			
MPPE			

Figure 5-2-7

Object	Description
Internet connection Type:	Displays a list of available Internet connection types.
PPTP Server IP:	Enter the IP address of a PPTP server.
Username/Password:	Enter Username/Password defined by the PPTP server.
Address mode:	Select "Dynamic" if you don't get any IP info from the PPTP server side, otherwise select "Static".
IP Address:	Enter the IP address provided by your ISP. Inquire your local ISP if

	you are not clear.
Subnet mask:	Enter the subnet mask provided by your ISP.
Default Gateway:	Enter the gateway provided by your ISP. Inquire your local ISP if you are not clear.
DNS Server:	Enter the necessary DNS address provided by your ISP.
Secondary DNS Server:	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional
• MTU:	Maximum Transmission Unit. The default value is 1460

■ L2TP

The L2TP protocol allows you to connect your router to a L2TP server.

For example: A corporate branch and headquarter can use this connection type to implement mutual and secure access to each other's resources.

WAN Settings->WAN			LS
Internet Connection Type	L2TP		Re
L2TP Server IP Address	12tp_server	(IP Address or domain name)	F
User Name	I2tp_user		2 m
Password	•••••		
Address Mode	Static 💌		
IP Address			
Subnet Mask			
Default Gateway			
DNS Server			
Secondary DNS Server			

Figure 5-2-8

Object	Description	
Internet connection	Displays a list of available Internet connection types	
Туре:		

L2TP Server IP Address:	Enter the IP address of a L2TP server.
Username/Password:	Enter Username/Password defined by the L2TP server.
Address mode:	Select "Dynamic" if you don't get any IP info from the L2TP server side, otherwise select "Static".
• IP Address:	Enter the IP address provided by your ISP. Inquire your local ISP if you are not clear.
Subnet mask:	Enter the subnet mask provided by your ISP.
Default Gateway:	Enter the gateway provided by your ISP. Inquire your local ISP if you are not clear.
DNS Server:	Enter the necessary DNS address provided by your ISP.
Secondary DNS Server:	Enter the other DNS address if your ISP provides you with 2 such addresses, and it is optional
• MTU:	Maximum Transmission Unit. The default value is 1458

PPPOE Dual Access

WAN Cottings > WAN		Sa
Internet Connection Typ	e PPPOE Dual Access 🔽	Res
User Name		Не
Password		
Address Mode	Static 💌	
IP Address		
Subnet Mask		
Default Gateway		
MPPE		

Figure 5-2-9

Object	Description
Internet connection Type:	Displays a list of available Internet connection types.

Username:	Enter the PPPOE account provided by your ISP.
Password:	Enter the PPPOE password provided by your ISP.
Address mode:	Select "Dynamic" if you don't get any IP info from the L2TP server side, otherwise select "Static".
IP Address:	Enter the IP address provided by your ISP. Inquire your local ISP if you are not clear.
Subnet mask:	Enter the subnet mask provided by your ISP.
Default Gateway:	Enter the gateway provided by your ISP. Inquire your local ISP if you are not clear.
• MTU:	Maximum Transmission Unit.
• WITU:	The default value is 1492

5.2.3 DHCP Settings

"DHCP" includes 3 submenus: **DHCP Server**, **Client List** and **Static Assignment**. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

The **Dynamic Host Configuration Protocol (DHCP)** is an automatic configuration protocol used on IP networks. If you enable the built-in DHCP server on the device, it will automatically configure the TCP/IP settings for all your LAN computers (including IP address, subnet mask, gateway and DNS etc), eliminating the need for manual intervention. Just be sure to set such PCs to DHCP clients by selecting "Obtain an IP Address Automatically" on each such PC. When you turn these PCs on, they will automatically load the proper TCP/IP settings provided by the device DHCP server.

DHCP Server

OHCP Server Client Li	st Static Assignment	
DUCD Same		Save
Start IP Address	192.168.1.100	Restore
End IP Address	192.168.1.200	Help
Lease Time	7 days	
Primary DNS Server	192.168.1.1	
Secondary DNS Server (Optional)		
(optional)		

Figure 5-2-10

Object	Description	
• DHCP	Check or uncheck the box to enable or disable the device's DHCP	
Server-Enable:	server feature.	
• Start IP Address:	Enter the starting IP address for the DHCP server's IP assignment.	
• End IP Address:	Enter the ending IP address for the DHCP server's IP assignment.	
	The length of time for the IP address lease. Configuring a proper lease	
Lease Time:	time improves the efficiency for the DHCP server to reclaim disused IP	
	addresses.	

Primary DNS Server:	Enter a DNS server address assigned to DHCP clients.
Secondary DNS Server	Enter the other DNS address assigned to DHCP clients (optional).

To benefit from the DHCP server feature, you must set all LAN PCs to DHCP clients by selecting the "Obtain an IP Address Automatically" radio buttons thereon.

DHCP Client List

This section displays a DHCP dynamic client list, which includes host name, IP address, MAC address and lease time info.

DHCP Server Clien	t List Static Assignm	ent	
If you enable the DHCP set	rver feature, DHCP client list w	vill be updated every 5 second	s. Refres
Host name	IP Address	MAC Address	Lease Time
FerrariOne	192.168.1.100	88:9f:fa:55:21:aa	6Day 21:14:44
ACUS INE	102 168 1 174	00-13-20-06-14-60	6Day 23:50:06

Figure 5-2-11

The page includes the following fields:

Object	Description
IP Address:	Displays IP address(es) that client(s) obtained from the DHCP server.
MAC Address: Displays MAC address of a given host.	
Host name: Displays name of a given host (DHCP client)	
Lease Time: Remaining time for a corresponding IP address lease.	

Static Assignment

If you would like some devices on your network to always have fixed IP addresses, you can use this feature and manually add a static DHCP assignment entry for each such device.

For example: To have a PC at the MAC address of 00:30:4F:11:22:33 always receive the same IP address of 192.168.1.200, simply enter the IP and MAC addresses in corresponding fields and click "**Add**" and then the "**Save**" button as shown below.

OHCP Se	erver Client List S	tatic Assignment		
Static Assi	gnment			Sa
IP Address	-			Res
MAC Addr	ess :		Add	He
ID	IP Address	MAC Address	Action	
1	192 168 1 200	00:30:4F:11:22:33	Edit Delete	

Figure 5-2-12

The page includes the following fields:

Object	Description	
• IP Address:	Enter the IP address for static DHCP assignment.	
MAC Address:	Enter the MAC address of a computer to always receive the same IP	
	address (the IP you just entered above).	
• Add:	Click to add the current IP-MAC static assignment entry to the list	
• Edit:	Click to change a given static assignment entry.	
• Delete:	Click to remove an existing entry	

5.2.4 WAN Port

"WAN Port" includes 2 submenus: **MAC Clone**, and **Speed/Duplex**. Clicking either tab enters corresponding interface for configuration. Below explains, in details, each such feature.

Γ	WAN Port					
	MAC Clone	Speed	/Duplex			
	TT. M.L.		4			Save
	WAN MAC A	i to conni idress:	00:30:4F:34:4B:C0	Restore to Factory Default MAC	Clone MAC	Restore
						Heln
						Heih



MAC Clone

This section allows you to set router's WAN MAC address. You can either manually enter a MAC or copy your PC's MAC to the router.

MAC Clone	Speed/Duplex			
Use this section	to config device's WAN MAC add	iress.		Save
WAN MAC Ad	dress: 88:9F:FA:55:21:AA	Restore to Factory Default MAC	Clone MAC	Restore
				Help

Figure 5-2-14

The page includes the following fields:

Object	Description
• WAN MAC	Displays router's current WAN MAC address, you can manually change
Address:	it.
Restore to Factory	Click it to restore router's WAN MAC to factory default value
Default MAC:	
Clone MAC:	Click to copy your PC's MAC to router's WAN MAC Address field.



Normally you don't need to change the default WAN MAC value. However, some ISP may bind client PC's MAC address for Internet connection authentication. In this case, simply enter such MAC in the WAN MAC Address field or click the "Clone MAC" button. Note that the WAN MAC address in running status interface will be updated accordingly.



Do remember to reboot the router to activate the new WAN MAC. DO NOT use the "Clone MAC" feature if your ISP does not bind your PC's MAC.

■ Speed/Duplex

This section allows you to config the router's WAN port speed/duplex settings.

WAN Port			
MAC Clone Speed/Duplex			
			Save
WAN Interface-Speed/Duplex	Auto	×	
	Auto		Restore
	10M full-du 10M half-du 100M full-d 100M half-d 100M half-d	plex uplex duplex duplex duplex	Help
	1000M half	-duplex	

Figure 5-2-14

You can select a WAN port speed/duplex mode that best suit your network environment from the drop-down list, which includes auto, 10M half-duplex, 10M full-duplex, 100M half-duplex, 100M half-duplex, 1000M half-duplex and 1000M full-duplex.



The WAN port speed/duplex mode must match that of its link partner to achieve successful communication; otherwise, the WAN port may not function properly. So, if you are not sure about the link partner's speed/duplex mode, please select "Auto"

5.3 Security Settings

"Security Settings" includes the following 5 submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

Navigation Menus 🛛 🚳
Device Info
Network
▼ Security
> Group
> Port Filter
> URL Filter
MAC Filter
> Access Control

5.3.1 Group Settings

"Group Settings" includes 2 submenus: **Group Settings**, **User Group** and **Time Group**. Clicking either tab enters corresponding interface for configuration. Below explains, in details, each such feature.

User Group

To create a user group, you need to specify a group name/description and an IP address/range. The user group feature works together with other related features.

User Group	ime Group			
Group Name	Group Description	IP	Action	Save
				11-1-

Figure 5-3-1

For example: If you want to add a user group for a R&D department within an IP of

192.168.1.200-192.168.1.250, first click the "Add" button and then follow steps below:

Group Name:	R_D	S
Group Description:	R_D IP Range	
IP:	Note: You can only either enter a single IP address or specify an IP address rang	ze.

Figure 5-3-2

- 1. Enter R_D in group name field.
- 2. Enter R_D IP Range in group description field.
- 3. Enter "192.168.1.200" and "192.168.1.250" in IP fields.
- 4. Click "Add "and then the "Save "button; you will find

Such entry in User Group list below:

TD	rintian	Group Descripti	Nama	ma Group Description
200 102 168 1 250	102.16	P. D IP Pape	oopriame	P D IP Panga 102 168 1 200 1
.200-192.168.1.250	e 192.16	R_D IP Range	me	R_D IP Range 192.168.1.200-

Figure 5-3-3

Time Group

To create a time group, you need to specify a group name/description and a time / time range.

iroup				
User Group	Time Group			
Group	Name	Group Description	Action	Save
- K			Add	Help

Figure 5-3-4

For example: If you want to set a period of time from **8** : **00** to **18** : **00** on working days from **Monday to Friday** to a time group, first click the "**Add**" button and then follow steps below:

										_															1
Grou	p Na	me:		1	Vork	ing [Days																		Sav
Grou	p De	scrip	tion:	1	Nork	ing (Days																		Rest
A11	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Hel
Mon																									
Tue																									
Wen																									
Thu																									
Fri																									
Sat																									
Sun																									

Figure 5-3-5

- 1. Enter "Working days" in group name field.
- 2. Enter "working days" in group description field.
- 3. Select the time and days.
- 4. Click "Save" and you will find such entry in Time Group list below:

User Group Time G	Froup		-
Group Name	Group Description	Action	Save
Westine Deep	Working Dave	Edit Delete	0

Figure 5-3-6

5.3.2 Port Filter

To better manage PCs in LAN, you can allow or disallow such PCs to access certain ports on Internet using the **Port Filter** functionality.

	_						Sav
Port Filter: l Note: If a c	Enable urrently configured r	ule repeats or overla	ps an earlier conf	igured rule, then	only the pr	evious rule	Resto
takes effect						24	
Default: De	ny 💌 Access to Int	ernet					Hei
Filter Mode	User Group Name	Time Group Name	Port Protocol	Description	Enable	Action	

Figure 5-3-7

Click "Add" to enter page below:

	Sav
Filter Mode: Deny 💙 Access to Interr	net Res
Enable:	
Description:	Не
User Group: R_D	
Time Group: Working Day:	
WAN Port Range: ~	
Protocol: Both	



Object	Description
• Filter Mode:	Select Deny or Allow according to your own needs.
Deny Access to Internet:	Disallow specified packets to pass through the router; other packets are processed according to default rule.
Allow Access to Internet:	Allow specified packets to pass through the router; other packets are processed according to default rule.

• Enable:	Check to enable current filter entry.
• Description:	Enter a meaningful name to yourself for a new filter rule
• User Group:	Select an added user group from the drop-down list.
• Time Group:	Select an added time group from the drop-down list.
WAN Port Range:	Enter port IDs. You can specify a range of ports or a single port. Allowed port ID ranges from 1 to 65535.
Protocol:	Select a protocol or protocols for the traffic ("Both" includes TCP and UDP).

For Example: If you want to disallow PCs within IP addresses ranging from 192.168.1.200 to 192.168.1.250("R&D" user group) to access web sites from 8:00 to 18:00 on working days – from Monday to Friday ("Working days" time group), do as follows:

- 1. Select "Deny" from the filter mode drop-down list.
- 2. Check the "Enable" box.
- 3. Enter "Forbid websites" in description field.
- 4. Select "R&D" from the user group drop-down list.
- 5. Select "Working days" from time group drop-down list.
- 6. Enter "80" in both boxes of "WAN Port Range".
- 7. Select "**Both**" from "Protocol" drop-down list.

ort Filter		
		Sa
Filter Mode:	Deny 🔺 Access to Internet	Res
Enable:		
Description:	Forbid Websites	He
User Group:	R_D 💌	
Time Group:	Working Day:	
WAN Port Range:	80 ~80	
Protocol:	Both 🗸	

Figure 5-3-9

8. Click "Save" and you will find such entry in the List below.

Port Filter: Note: If a d	Enable currently configure	ed rule repeats or o	verlaps	an earlier c	onfigured rule, t	hen only the	previous rule	Res
Default: De	eny 🔽 Access to	Internet						He
Filter Mode	User Group Name	Time Group Name	Port	Protocol	Description	Enable	Action	
Deny	R_D	Working Days	80- 80	Both	Forbid Websites		Edit Delete	

Figure 5-3-10

9. Select "Allow" from the "Default" drop-down list and check "Enable" Port Filter feature.

Note: If a currently configured rule repeats or overlaps an earlier configured rule, then only the previous rule rakes effect.	Dec
akes effect.	Res
Default: Allow 💌 Access to Internet	He
Filter User Group Time Group Port Protocol Description Enable Mode Name Name	
Deny R_D Working Days 80- Both Forbid Vebsites	ete

Figure 5-3-11

5.3.3 URL Filter

To better control LAN PCs, you can use the URL filter functionality to allow or disallow such PC to access certain websites within a specified time range.

URL Filter						
URL Filter:□Er Note:If a curre takes effect. Default: □Deny	nable ently configured rule re Access to Interne	peats or overlaps an ea t	rlier configured	rule,then only	the previous	rule
Filter Mode	User Group Name	Time Group Name	URL String	Description	Enable	Action
17					Delete	All Add

Figure 5-3-12

Click "Add" to display page below:

Filter Mode:	Deny 🗸 Access to Internet
Enable:	
Description:	
IP Group:	R_D
Time Group:	Working Day:
URL String	

Figure 5-3-13

Object	Description
• Filter Mode:	Select Deny or Allow according to your own needs.
Deny Access to	Disallow specified packets to pass through the router; other packets are

Internet:	processed according to default rule.
Allow Access to Internet:	Allow specified packets to pass through the router; other packets are processed according to default rule.
• User Group:	Select an added user group from drop-down list.
• Time Group:	Select an added time group from drop-down list.
• Description:	Enter a meaningful name to yourself for a new filter rule.
URL character string:	Enter domain name string to be filtered.

For Example: If you want to disallow PCs within IP addresses ranging from 192.168.1.200 to 192.168.1.250("R_D" user group) to access only web sites containing "yahoo" from 8:00 to 18:00 on working days – from Monday to Friday ("Working days" time group), without restricting other PCs, do as follows:

- 1. Select "Deny" from the filter mode drop-down list.
- 2. Check the "Enable" box.
- 3. Enter "Disallow yahoo" in description field.
- 4. Select "R_D" from the user group drop-down list.
- 5. Select "Working days" from time group drop-down list.
- 6. Enter "yahoo" in URL String field.

<i>i</i>	
Filter Mode:	Deny 😪 Access to Internet
Enable:	
Description:	Forbid_Yahoo
IP Group:	R_D 💌
Time Group:	Working Day:
URL String	yahoo
orter orthing.	(A comma should be put between different domain names. Up to 16 entries allowed!)

Figure 5-3-14

7. Click "Save" to display page below:

eless offerst	rently configured r	ule repeats or overla	ps an earlier config	gured rule,th <mark>e</mark> n	only the pre	vious rule
akes effect.						
efault: Den	iy 💌 Access to In	ternet	ü		<u></u>	
Filter Mode	User Group Name	Time Group Name	URL String	Description	Enable	Action
Deny	R_D	Working D ays	yahoo	Forbid_Ya hoo		Edit Delete

Figure 5-3-15

8. Select "Allow" from the "Default" drop-down list and check the "Enable" URL Filter feature.

URL Filter:	Enable	ula rapasta ar avarb	na na antiar canfi	nurad rula than	ask the pro	
takes effect	t.	ule repeats of overla	ips an eanier conni	gureu ruie, crier	only the pre	vious rule
Default:	Access to In	tarnat				
Delault.	Access to 1	ltemet				
Filter Mode	User Group Name	Time Group Name	URL String	Description	Enable	Action
Deny	R_D	Working D ays	yahoo	Forbid_Ya hoo		Edit Delete

Figure 5-3-16

5.3.4 MAC Address Filter

To better manage PCs in LAN, you can use the MAC Address Filter function to allow/disallow such PCs to access to Internet.

MAC Add	ress Filter				
Enable M	AC Filter				
Defalut: D	eny 🔽 Acce	ss to Interne	t		
			Day		
Filter		Time	8224 10860 10860 10080 10080 10080	Description	Action
Filter Mode	MAC	1.1114	Sun Mon Tue Wen Thu F	ri Sat	

Figure 5-3-17

Click "Add" to display page below:

Filter Mode	Deny 💙 Access to Internet	
Description		
MAC:	: : : : : : : MAC Address list	~
Time:		
Day:	Everyday Sun Mon Tue Wen Thu Fri Sta	

Figure 5-3-18

Object	Description
• Filter Mode:	Select Deny or Allow according to your own needs.
Deny Access to Internet:	Disallow specified packets to pass through the router; other packets are processed according to default rule.
Allow Access to Internet:	Allow specified packets to pass through the router; other packets are processed according to default rule.
Description:	Briefly describe a new filter rule

• MAC:	Enter the computer's MAC address that you want to filter out in the MAC
	address field or select one from the MAC address list.
Timo	Select a time range for the new MAC address filter rule to take effect.
• Time:	The default is 00:00-00:00, which means 24 hours.
• Day:	Select a day or several days for the new MAC address filter rule to take effect.

For Example: To only prevent a PC at the MAC address of 00:30:4F:77:88:00 from accessing Internet from 8:00 to 18 : 00 everyday, without restricting other PCs, configure same settings on the screenshot below on your device:

MAC Addre	ess Filter	
Filter Mode	Deny 🖌 Access to Internet	
Description	Restricted_PC	
MAC:	00 : 30 : 4f : 77 : 88 : 00 <== MAC Address list	~
Time:	08 💙 : 00 💙 ~ 🚺 💙 : 00 💙	
Dav:	Everyday Sun Mon Tue Wen Thu Fri Sta	

Figure 5-3-19

Click "Save" to display the following page. Select "Allow" from the "Default" drop-down list and check the "Enable MAC Filter" feature as below.

AC A	adress Filter										
2 Enable	MAC Filter										
Defalut	Allow 🗸 Access to	Internet									
		68				Davi				1	
Filter	MAC	Time	Ciup	Marc	Tuo	Day	Thu	Eri	Cat	Description	Action
Filter Mode	MAC	Time	Sun	Mon	Tue	Day Wen	Thu	Fri	Sat	Description	Action

Figure 5-3-20

5.3.5 WAN Access Control

The WAN Access Control feature allows users to configure your router from Internet via a web browser.

		Sau
Enable:		Save
IP Address	0.0.0.0	Resto
Port:	8080	Help



The page includes the following fields:

Object	Description
• Enable:	Check or uncheck to enable or disable the WAN Access Control feature.
• Port:	Enter a port ID for remote web-based management.
	The default is 8080.
• IP Address:	Enter the IP address of a PC on Internet authorized to access and manage your router's web-based utility remotely.



If you enter **0.0.0.0** in the IP address box, then all PCs on Internet can access your router's Web-based utility to view or change your settings remotely once you enable the feature.

For example: If you want to allow only a PC at the IP address of 60.250.65.207 to access your router's Web-based utility from Internet via port: 8080, you need to configure same settings as shown on the interface below on your router. And what this IP user needs to do is to simply launch a browser and enter http:// 210.61.134.96:8080 (provided that your router's WAN IP address is 210.61.134.96).

WAN Access Co	ntrol	71.5
Enable:		Save
IP Address:	60.250.65.207	Resto
Port:	8080	Help

Figure 5-3-22

5.4 Advanced Settings

"Advanced Settings" includes the following 6 submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.

- A	dvanced
>	Virtual Server
>	DMZ
Þ	UPnP
1	DDNS
>	Routing
>	Bandwith Control

5.4.1 Virtual Server

The Virtual Server feature grants Internet users access to services on your LAN. It is useful for hosting online services such as FTP, Web, or game servers. For each Virtual Server, you define a WAN port on your router for redirection to an internal LAN IP Address and LAN port.

			Virtual Serve	r List		
D	WAN Port	LAN Port	Private IP	Protocol Type	Status	Action

Figure 5-4-1

Click "Add" to display below page.

Virtual Server	
Virtual Server allo a LAN server at a connect to a spe	ws you to open a single WAN service port and redirect all traffic received through such port to designated IP address. It allows remote computers, such as computers on the Internet, to crific computer or service within a private local area network (LAN).
WAN Port:	53 Well-known Service Port: DNS(53)
LAN Port:	53
Private IP:	
Protocol:	Both 💌
Enable:	

Figure 5-4-2

The page includes the following fields:

Object	Description
• WAN Port:	Enter the WAN service port.
• Well-Known Service Ports:	The "Well-Known Service Port" lists commonly used protocol ports such as: DNS (53) FTP (21) GOPHER (70) HTTP (80) NNTP (1190) POP3 (110) PPTP (1723) SMTP (25) SOCK (1080) TELNET(23) In case that you don't find the port ID you need, add it manually.
LAN Port:	Enter LAN service port.
• LAN IP:	The IP address of a computer used as a server in LAN.
Protocol:	Includes TCP , UDP and Both . Select "Both" if you are not sure about which protocol to use.
Enable:	Check the Enable option to activate corresponding entry.

For example: If you create a web server using port 80 on a LAN PC at the IP address of 192.168.0.10, and you want WAN users to access such server via <u>http://x.x.x.xi4000</u> (x.x.x.x represents router's WAN IP address), then do as follows:

- 1) Enter "4000" in WAN Port field, 80 in LAN port field and 192.168.0.10 in Private IP field,
- 2) Select "Both" from protocol drop-down list.
- 3) Check the "Enable" box.
- 4) Click "Save" to save such settings.

Virtual Serve	er
Virtual Server all a LAN server at connect to a spe	ows you to open a single WAN service port and redirect all traffic received through such port to a designated IP address. It allows remote computers, such as computers on the Internet, to ecific computer or service within a private local area network (LAN).
WAN Port:	4000 Well-known Service Port: HTTP(80)
LAN Port:	80
Private IP:	192.168.1.100
Protocol:	Both 💌
- 0.00	

Figure 5-4-3



Setting WAN port hereon to the same value as that on WAN access control section will deactivate the virtual server feature.

5.4.2 DMZ Settings

In some cases, we need to set a computer to be completely exposed to extranet for implementation of a bidirectional communication. To do so, we set it as a DMZ host.

In some cases, a computer needs we set it as a DMZ host.	to be completely exposed to extranet for implementation of 2-way communication. To do so,
(IMPORTANT: Once a PC is s firewall settings become inopera	et to a DMZ host, it will be completely exposed to Internet, and may be vulnerable to attack as tive.)
DMZ Host IP address:	192.168.1.100 Enable

Figure 5-4-4

The page includes the following fields:

Object	Description
DMZ Host IP	Enter the IP address of a LAN computer which you want to set to a DMZ
Address:	host.
• Enable:	Check/uncheck to enable/disable the DMZ host.

	1.	If you set a PC to a DMZ host, it will be completely exposed to extranet and gains
		no more protection from the device firewall.
Note	2.	2. A WAN user accesses the DMZ host through a corresponding WAN IP address.

5.4.3 UPnP Settings

UPnP (Universal Plug and Play) requires Windows ME/Windows XP or later or application softwares that support such UPnP feature.

Enable	UPnP					
			UPnP Mapping	List		
ID	Remote Host	WAN Port	LAN Host	LAN Port	Protocol	Description

Figure 5-4-5

Object	Description
• ID:	Entry ID.
Remote Host:	Description of a remote host that receives/sends responses.
WAN Port:	Port on router side.
LAN Host:	Description of an internal host that receives/sends responses.
LAN Port:	Port on host side.
Protocol:	Indicates whether to perform TCP or UDP port forwarding
Description:	Software info of a mapped port.

5.4.4 Routing

This section talks about Routing Table and Static Routing features.

Routing Table

This page displays the router's core routing table which lists destination IP, subnet mask, gateway, hop count and interface.

outing Table Static Routing				
Destination Network	Subnet Mask	Gateway	metric	Interface
192.168.2.0	255.255.255.0	0.0.0.0	0	br1
192.168.1.0	255.255.255.0	0.0.00	0	br0
127.0.0.0	255.0.0.0	0.0.0.0	0	1o

Figure 5-4-6

Static Routing

You can use this section to set up router's static routing feature.

		Static Routing Table		
ID	Destination Network	Subnet Mask	Gateway	Action

Figure 5-4-7

Click "Add" to add static routing entries.

Routing Table Static Routing		
	Static Routing	
Destination Network:		
Subnet Mask:		
Gateway		

Figure 5-4-8

The page includes the following fields:

Object	Description
Destination Network:	Enter a destination IP address.
Subnet Mask:	Enter a Subnet Mask that corresponds to the destination IP address you entered.
Gateway:	Next-hop IP address.

5.4.5 Bandwidth Control

To better manage bandwidth allocation and optimize network performance, use the Custom Bandwidth Allocation feature.

Bandwidth Settings	
Oisable Bandwidth Allocation	Save
O Custom Bandwidth Allocation	Restore
	Help

Figure 5-4-9

Object	Description
Custom	Select this option to customize a bandwidth allocation policy that best
Bandwidth	fits your network. You can set specific limits on uplink and downlink
Allocation:	bandwidth of PCs within a specified IP range.

Bandwith	n Control					
Band	width Settings					
	 Disable Bandwidth Allo Custom Bandwidth Allo 	ocation				
	IP Range	Upstream	Downstream	Description	Enable	Action
						Clear Add

Figure 5-4-10

Click "Add" to display the page below:

Bandwidth Settings		
Enable	□ (If disabled, settings below will only be sa	ved instead of being activated.)
IP Range		
Upstream Bandwidth Limit	KByte(Total)	
Downstream Bandwidth limit	t KByte(Total)	
P2P Download Control	Regulates P2P download rate to ensure each	ch user a guaranteed share of bandwidth.
Allocation Mode	• Each member of the IP range shall utilize the allocated bandwidth individually.	O All members of the IP range shall share the allocated bandwidth collectively.
Allocation Policy	O Uitize only allocated bandwidth	OUtilize more bandwidth if availabl
Description		

Figure 5-4-11

Object	Description
• Enable:	Check/uncheck to enable/disable current bandwidth entry
IP Range:	Enter a single IP or an IP range.
Upstream Bandwidth Limit:	Max total upload bandwidth for a specified PC or a range of PCs.
Downstream Bandwidth Limit:	Max total download bandwidth for a specified PC or a range of PCs
P2P Download Control:	Regulates P2P download rate to ensure each user a guaranteed share of bandwidth.
Allocation Mode:	 Select either- "Individual (Each member of the IP range shall utilize the allocated bandwidth individually)" "Collective (All members of the IP range shall share the allocated bandwidth collectively)"
Allocation Policy:	Select either "Utilize only the allocated bandwidth" or "Utilize more bandwidth if available"
Description:	Brief description of current entry.

1. Please note the bandwidth unit.



- If you enable the P2P Download Control feature, it will limit P2P download rate (smaller than the specified value) to ensure other applications such as web browsing a reserved and guaranteed share of bandwidth.
- . If you select "**Utilize more bandwidth if available**", router will dynamically adjust uplink/downlink bandwidth allocation to ensure defined and additional bandwidth if available or only defined bandwidth.

For example:

If you want each PC within the IP range of 192.168.1.100-192.168.1.120 to have up to 2M uplink and 2M downlink bandwidth, and want to control P2P download bandwidth, then configure same settings as shown on the screen below on your router:

Bandwidth Settings		
Enable	☑ (If disabled, settings below will only be say	ved instead of being activated.)
IP Range	192.168.1.100 - 192.168.1.120	
Upstream Bandwidth Limit	256 KByte(Total)	
Downstream Bandwidth limit	256 KByte(Total)	
P2P Download Control	Regulates P2P download rate to ensure eac	h user a guaranteed share of bandwidth.
Allocation Mode	• Each member of the IP range shall utilize the allocated bandwidth individually.	• All members of the IP range shall share the allocated bandwidth collectively.
Allocation Policy	Outize only allocated bandwidth	O Utilize more bandwidth if available
Description		

Figure 5-4-12

5.5 Wireless Settings

Wireless Settings includes 8 submenus as shown in the screenshot below. Clicking any tab enters corresponding interface for configuration.

w	ireless
Þ	Basic
> :	Security
×	WPS
Þ	WDS
> (Guest Network
> 1	Wireless Access Control
> (Connection List
×	Advanced

5.5.1 Basic Settings

This section allows you to manage your wireless network (2.4G or 5G). You can config country code, wireless network name (SSID), network mode and channel settings, etc the way you want.

Basic Settings-- 2.4G

Country: America 💌		Sav
2.4GHz wireless network	Enable	Res
SSID Broadcast	Enable O Disable	Не
SSID	Default_2.4G	
802.11 Mode	11b/g/n mixed mode 💌	
Channel	Auto	
Channel Bandwidth	○ 20 ④ 20/40	
Extension Channel	Auto 💌	
WMM Capable	Enable O Disable	
APSD Capable	O Enable Disable	

Figure 5-5-1

The page includes the following fields:

Object	Description
• Country:	Select your country code from the drop-down list. There are 11 options available.
• 2.4GHz Wireless	Check/uncheck to enable/disable the 2.4GHz wireless feature. If
Network:	disabled, all 2.4GHz-based features will be disabled accordingly.
	Select "Enable"/"Disable" to make your wireless network visible/
	invisible to any wireless clients within coverage when they perform a
SSID Broadcast:	scan they perform a scan to see what's available.
	When disabled, such wireless clients will have to first know this SSID
	and manually enter it on their devices if they want to connect to the
	SSID.
	By default, it is enabled .
• SSID:	A SSID (Service Set Identifier) is the unique name of a wireless network.
- 902.11 Mode	Select a right mode according to your wireless client.
• 602.11 Wode:	The default mode is 11b/g/n mixed .
	For an optimal wireless performance, you may select the least
Channel	interferential channel. It is advisable that you select an unused channel
• Channel:	or "Auto" to let device detect and select the best possible channel for
	your wireless network to operate on from the drop-down list.
	Select a proper channel bandwidth to enhance wireless performance.
Channel Bandwidth	When there are 11b/g and 11n wireless clients, please select the
	802.11n mode of 20/40M frequency band.
Extension Channel:	Working network frequency range for 11n mode
	Enabling this option may boost transmission capacity of wireless
• WMM-Capable:	multimedia data (such as online video play).
ASPD Capable:	Select to enable/disable the auto power saving mode.



When there are only **non-11n wireless clients**, select **20M** frequency band mode; when the wireless network mode is **11n mode**, please select **20/40M** frequency band to boost its throughput.

Basic Settings-- 5G

Country: America 💌		8
5GHz wireless network	Enable Enable	R
SSID Broadcast	⊙ Enable ○ Disable	
SSID	Default_5G	
802.11 Mode	11a/n mixed mode 💌	
Channel	Auto	
WMM Capable	● Enable ○ Disable	
APSD Capable	O Enable Disable	

Figure 5-5-2

Object	Description
- Countrau	Select your country code from the drop-down list.
• Country:	There are 10 options available.
• 5GHz Wireless	Check/uncheck to enable/disable the 5GHz wireless feature. If disabled,
Network:	all 5GHz-based features will be disabled accordingly.
	Select "Disable" to hide your SSID. When disabled, no wireless clients
SSID Broadcast:	will be able to see your wireless network when they perform a scan to
	see what's available. If they want to connect to your router, they will
	have to first know this SSID and then manually enter it on their devices.
	By default, this option is enabled .
	A SSID (Service Set Identifier) is the unique name of a wireless network
• 5510:	(changeable).
	Select a right mode according to your wireless client.
• 802.11 Mode:	The default mode is 11a/n .
	The Channel can be changed to fit the channel setting for an existing
Channel	wireless network or to customize the wireless network. From the
• Channel:	drop-down list, you can select a most effective channel. You can also
	select "Auto Select" to let system detect and choose one that best fits

	your network.	
• WMM-Capable:	Enabling this option may boost transmission capacity of wireless multimedia data (such as online video play).	
ASPD Capable:	Select to enable/disable the auto power saving mode.	

5.5.2 Wireless Security

This section allows you to encrypt both 2.4GHz wireless and 5GHz wireless networks to block unauthorized accesses and malicious packet sniffing.

To configure wireless security settings for 2.4GHz network, enter page below:

Security				
2.4G	5G			
	2 AGHz natural SSID	"Default 2.4G"		Save
1	Security Mode	Disable	~	Restore
		- Know and south of the second second		

Figure 5-5-3

Available options for security mode include "**Open**", "**Shared**", "**WPA-PSK**", "**WPA2-PSK**", "**Mixed WPA/WPA2-PSK**". See below for details.

Security		
2.4G 5G		
2.4GHz network \$\$ID	"Default_2.4G"	Save
Security Mode	Disable	Restore
	Disable	
	Open	Help
	Shared	
	WPA - PSK	
	WPA2 - PSK	
	Mixed WPA/WPA2 - PSK	

Figure 5-5-4

OPEN/SHARED

WEP is intended to provide data confidentiality comparable to that of a traditional wired network. Two methods of authentication can be used with WEP: **Open System** authentication and **Shared Key** authentication.

			Cour
2.4GHz network SSID	"Default_2.4G"		Save
Security Mode	Open	×	Rest
Default key	key 1 💌		Hel
WEP key1	ASCII	ASCII 🐱	
WEP key2	ASCII	ASCII 💌	
WEP key3	ASCII	ASCII 💌	
WEP key4	ASCII	ASCII 💌	

Figure 5-5-5

The page includes the following fields:

Object	Description
• Security Mode:	Select a proper security mode from the drop-down menu.
Default Key:	Select one key from the 4 preset keys to encrypt wireless data on the network.

■ WPA-PSK

The WPA protocol implements the majority of the <u>IEEE 802.11i</u> standard. It enhances data encryption through the **Temporal Key Integrity Protocol (TKIP)** which is a 128-bit per-packet key, meaning that it dynamically generates a new key for each packet. WPA also includes a <u>message integrity check</u> feature to prevent data packets from being hampered with. Only authorized network users can access the wireless network.

2.46 56		
2.4GHz network SSID	"Default_2.4G"	Save
Security Mode	WPA - PSK	Restor
Cipher Type	O AES O TKIP O TKIP&AES	Help
Security Key	987654321	
Key Renewal Interval	86400 Seconds	

Figure 5-5-6
The page includes the following fields:

Object	Description	
	Select one cipher type from:	
Cipher Type:	 AES (Advanced Encryption Standard) 	
	■ TKIP (Temporary Key Integrity Protocol)	
Security Key:	Enter a security key, which must be between 8-63 ASCII characters.	
Key Renewal Interval:	Enter a valid time period for the key.	

WPA2-PSK

The later WPA2 protocol features compliance with the full IEEE 802.11i standard and uses **Advanced Encryption Standard (AES)** in addition to TKIP encryption protocol to guarantee better security than that provided by WEP or WPA.

2.4G 5G		
2.4GHz network SSID	"Default_2.4G"	Save
Security Mode	WPA2 - PSK	Restore
Cipher Type	O AES O TKIP [●] TKIP&AES	Help
Security Key	987654321	
Key Renewal Interval	86400 Seconds	

Figure 5-5-7

The page includes the following fields:

Object	Description		
	Select one cipher type from:		
	 AES (Advanced Encryption Standard) 		
• Cipiter Type:	TKIP (Temporary Key Integrity Protocol)		
	■ TKIP&AES.		
Security Key:	Enter a security key, which must be between 8-63 ASCII characters.		
Key Renewal Interval:	Enter a valid time period for the key.		

5.5.3 WPS Settings

Wi-Fi Protected Setup makes it easy for home users who know little of wireless security to establish a secure wireless home network, as well as to add new devices to an existing network without entering long passphrases or configuring complicated settings.



Figure 5-5-8

Simply enter a PIN code or press the software PBC button or hardware WPS button (if any) and a secure wireless connection is established.

.4G 5G		
2.4GHz wireless netw	ork	Save
2.4GHz SSID	Default_2.4G	Restor
Enable WPS	O Disable 💿 Enable	Hein
WPS Mode	●PBC ○ PIN	Theip
	Reset	OOB

Figure 5-5-9

The page includes the following fields:

Object	Description	
• Enable WPS:	Select to enable/disable the WPS encryption.	
• WPS Mode:	 Select PBC (Push-Button Configuration) or PIN. Operation Instructions PBC: If you find the WPS LED blinking for 2 minutes after you press the hardware WPS button on the device, it means that PBC encryption method is successfully enabled. And an authentication will be performed between your router and the WPS/PBC-enabled wireless client device during this time; if it succeeds, the wireless 	

	client device connects to your device, and the WPS LED turns off. Repeat steps mentioned above if you want to connect more wireless client devices to the device.
	PIN: To use this option, you must know the PIN code from the wireless client and enter it in corresponding field on your device while using the same PIN code on client side for such connection.
	When clicked, the WPS LED turns off; WPS function will be disabled
Reset OOB:	automatically; WPS server on the Router enters idle mode and will not
	respond to client's WPS connection request



The WPS encryption can be implemented only between your Router and another WPS-capable device.

5.5.4 WDS Settings

WDS (Wireless Distribution System) feature can be used to extend your existing 2.4G or 5G wireless network coverage. Here we present you how to configure such feature in 2.4GHz, which also apply to 5GHz.



WDS		
WDS Mode	Disable	Save Restore Help

Figure 5-5-10

Select Repeater Mode to display below page:

Object	Description		
	Enter the MAC address of a wireless link partner or populate this field		
• AP MAC Address:	using the Open Scan option.		
• WDS Mode:	Select Disable or Repeater Mode		

For example: If you want to implement the WDS feature on 2 WDRT-731U routers labeled WDRT-731U-1 and WDRT-731U-2 respectively, then first select "Repeater Mode" and follow steps below:

WDS		
WDS Mode AP MAC address AP MAC address	Repeater Mode 💌	Save Restore Help
	Open scan	

Figure 5-5-11

1. If you already know **WDRT-731U-2's** MAC address, then you can manually enter it on **WDRT-731U-1** and click "Save".

2. Or you can use the Open Scan option.

1) Click the "Open Scan" button to search and select WDRT-731U-2's SSID, confirm on the appearing dialogue

/DS					_	
2.4G 5G						
WDS Mode	ŧ.	Repeater Mode 💌				Save
AP MAC a	ddress					Restor
AP MAC a	ddress					Help
		Close scan				
Select	SSID	MAC address	Channel	Security	Signal strength	
0	DSL-6641K	F0:7D:68:FA:C5:A1	1	none	73	
0	PLANET_2.4G	00:11:22:33:44:50	8	wep/wpa	24	
0	WPS-Dongle	00:12:5F:08:C2:BA	8	wep/wpa	54	
0	stanzerl 1	50:67:E0:13:86:5D	10	wen/wna	85	

box and then click "Save". WDRT-731U-2's MAC address will be added automatically.



2) Save your settings.

						Cou
WDS Mod	e	Repeater Mode 💌				Jav
AP MAC a	iddress	00:11:22:33:44:50				Rest
AP MAC a	iddress					Hel
						1
		Close scan				
Select	SSID	MAC address	Channel	Security	Signal strength	
Select	SSID DSL-6641K	MAC address F0:7D:68:FA:C5:A1	Channel 1	Security none	Signal strength 73	
Select	SSID DSL-6641K PLANET_2.40	MAC address F0:7D:68:FA:C5:A1 00:11:22:33:44:50	Channel 1 8	Security none wep/wpa	Signal strength 73 34	
Select	SSID DSL-6641K PLANET_2.40 WPS-Dongle	MAC address F0:7D:68:FA:C5:A1 00:11:22:33:44:50 00:12:5F:08:C2:BA	Channel 1 8 8	Security none wep/wpa wep/wpa	Signal strength 73 34 54	

Figure 5-5-13

3. Repeat steps 1-2 on **WDRT-731U-2.** After the 2 devices have added each other's MAC address the WDS feature can be implemented.

 WDS feature can only be implemented between 2 wireless devices that both support the WDS feature. Plus, SSID, channel, security settings and security key must be the same on both such devices.

 To encrypt your wireless network, see sections 5.5.2-5.5.3. Do remember to reboot the device after you saved your wireless security settings, otherwise the WDS feature may not function.

5.5.5 Guest Network

The Guest Network feature allows guests to access Internet and other users on the guest network while disallowing them to access device web manager, users on primary network and clients behind the LAN ports.

You can find it available in both 2.4G and 5G network. Here we present you how to configure such feature in 2.4GHz, which also apply to 5GHz.

2.4G 5G		Save
2.4GHz wireless netwo	ork	Restor
Guest Network	Enable	
SSID Broadcast	Enable	Help
AP Isolation	Enable	
SSID	Default_2.4G_2	
Security Mode	Disable 💌	

Figure 5-5-14

The page includes the following fields:

Object	Description
Guest Network:	Check/uncheck to enable/disable the guest network feature.
	Select "Disable" to hide your SSID. When disabled, no wireless clients
	will be able to see your wireless network when they perform a scan to
SSID Broadcast:	see what's available. If they want to connect to your router, they will
	have to first know this SSID and then manually enter it on their devices.
	By default, it is enabled.
	If enabled, clients connecting to the guest network will be mutually
• AP isolation:	inaccessible.

• SSID:	A SSID (Service Set Identifier) is the unique name of a wireless network.
Security Mode:	Determine whether to require authentication on wireless clients. Select a proper mode from the drop-down menu.

5.5.6 Wireless Access Control

The **MAC-based Wireless Access Control** feature can be used to allow or disallow clients to connect to your 2.4G or 5G wireless network. Here we present you how to config such feature in 2.4GHz, which also apply to 5GHz.

Wireless Access Control	
2.4G 5G	
2.4GHz network SSID	"Default_2.4G"
The Wireless Access Cont wireless network.	rol feature can be used to allow or disallow clients at specified MAC addresses to connect to your
Wireless Acce	ess Control Disable 💌 Access to Wireless Network



The page includes the following fields:

Object	Description	
• MAC Address Filter:	 Selecting "Disable" means to deactivate the MAC address filter feature. "Allow" means to only allow PCs at specified MAC addresses to connect to your wireless network while "Deny" means to only block PCs at specified MAC addresses from connecting to your wireless network. 	
MAC Address:	Enter the MAC addresses of a wireless client.	
• Add:	Click it to add a new MAC to the MAC address list.	
• Delete:	Click it to remove an existing entry.	

To allow only a PC at the MAC address of 00:30:4f:11:22:33 to connect to your wireless network, do as follows:

Step 1. Select "Allow" from MAC Address Filter drop-down menu.

Wireless Access Control	
2.4G 5G	
2.4GHz network SSID "Default_2.4G"	Save
The Wireless Access Control feature can be used to allow or disallow clients at specified MAC addresses to connect to you wireless network.	r Restore
Wireless Access Control Allow Control Access to Wireless Network	Help
MAC address Action	
Image: Second se	

Figure 5-5-16

Step 2. Enter 00:30:4f:11:22:33 in the MAC address box and click "Add".

Step 3. Click the "**Save**" button to save your settings and you can add more MAC addresses, if you like, simply repeating the above steps.

Wireless Access Control	
2.4G 5G	
2.4GHz network SSID "Default_2.4G"	Save
The Wireless Access Control feature can be used to allow or disallow clients at specified MAC addresses to connect to your wireless network.	Restore
Wireless Access Control Allow 🖌 Access to Wireless Network	Help
MAC address Action	
00 : 30 : 4f : 11 : 22 : 33 Add	
00:30:4f:11:22:33 Delete	

Figure 5-5-17

5.5.7 Connection Status

This interface displays the information of currently connected 2.4G and 5G wireless clients (if any).

2.4G 5G			
2.4GHz network SSI	D "Default_2.4G"		Help
This section displays	info of connected wireless clients.		
The currently connect	ed hosts list: Refresh		
NO.	MAC address	Link speed	
1	00:12:5F:08:C2:BB	1.0 Mbps	
2	00:30:4F:0F:98:28	300.0 Mbps	

Figure 5-5-18

2.4G 5G			-
5GHz network SSID "De	fault_5G"		Hel
This section displays info o	f connected wireless clients.		
The currently connected ho	sts list: Refresh		
NO.	MAC address	Link speed	
1	00:15:00:58:2E:48	135.0 Mbps	

Figure 5-5-19

5.5.8 Wireless – Advance Settings

This section allows you to configure advanced settings, including **Beacon interval**, **Fragment threshold**, **RTS threshold** and **DTIM interval**, etc, for both 2.4G and 5G wireless networks.

	Tradite		Save
Ar Isolation			Rest
Beacon Interval	100	ms (range: 20 - 999,default: 100)	Rest
Fragment Threshold	2346	(range: 256 - 2346, default: 2346)	Help
RTS Threshold	2347	(range: 1 - 2347, default: 2347)	
DTIM Interval	1	(range: 1 - 16384 default: 1)	

Figure 5-5-20

The page includes the following fields:

Object	Description
AP Isolation:	Isolates clients connecting to the private SSID.
	A time interval between any 2 consecutive Beacon packets sent by
Beacon Interval:	device.
	Note: Do NOT change the default value of 100 unless necessary.
F	Enter a Fragment Threshold (256-2346). Any wireless packet exceeding
• Fragment	such set value will be divided into several fragments.
Threshold.	Note: DO NOT change the default value of 2346 unless necessary
	If a packet exceeds such set value, RTS/CTS scheme will be used to
	reduce collisions. Set it to a smaller value provided that there are distant
• RTS Threshold:	clients and interference.
	For normal SOHO, it is recommended to keep the default value
	unchanged; otherwise, device performance may be degraded
	A time interval between any two consecutive broadcast and multicast
	packet messages sent by the device to clients.
DTIM Interval:	When such packets arrive at device's buffer, the device will send DTIM
	(delivery traffic indication message) and DTIM interval to wake
	clients up for receiving these packets.

5.6 USB Applications

WDRT-731U built-in with one USB 2.0 port can be connected to a USB printer or storage for file sharing.

It can auto recognized the USB printer or storage automatically without user experience. Thus all clients on the network can share printer or mass storage on WDRT-731U without complicated network configuration. The USB port also output 5V DC power can charge any USB compliant devices.



* Sharing Printer and Mass Storage

5.6.1 USB Storage

Share a USB storage device with PC/Laptop on the local network of the WDRT-731U.

Insert a USB storage device, such as a flash drive or external hard drive, to the USB port on the right side of the WDRT-731U. The WDRT-731U can automatically identify attached storage and load its root directory folder. Follow the directions below for your operating system.

Enable Storage				Save
Device Name	WDRT-731U			Restor
Workgroup	workgroup			Help
ID	Add Edit Delete (T	o let users access sha	red resources, add them here.)	
USB Device			Remove USB Device	

Figure 5-6-1

The page includes the following fields:

Object	Description
• Enable:	Check/uncheck to enable/disable file sharing feature.
Device Name:	Define a meaningful name to you for the device.
• Work Group:	Define a work group name for the device.
• Add:	Click to add an account. Up to 5 accounts can be added.
• Edit:	Click to edit an existing account.
• Delete:	Click to delete an existing account.



Up to 5 users are allowed for server sharing.

Operation Instructions:

Step 1. Create an account.

1). Click "Add" to display a dialogue box below:

Storag	e		_
USB	3 Storage		
	Enable Storage		Save
	Device Name	WDRT-731U	Restore
	Workgroup	workgroup	Help
	ID	Add Edit Delete (To let users access shared resources, add them here.)	
	USB Device	Remove USB Device	
		User Name Password Confirm Password Ok Cancel	

Figure 5-6-2

- 2) Enter a user name and a password, which will be used by clients when accessing the USB storage device for sharing files thereon.
- 3) Re-type to confirm password and then click the "OK" button.

USB Storage		1
Enable Storage		Save
Device Name	WDRT731U	Restor
Workgroup	workgroup	Help
ID	Add Edit Delete (To let users access shared resources, add them here.)	
1	Jack	

Figure 5-6-3

Step 2. Set Access Right

First select an account and click USB Device. And then select a proper access right from below for each entry. Access authority is classified into three levels: R/W, R, and N.

		1
Enable Storage		Sa
Device Name	WDRT731U	Rest
Workgroup	workgroup	He
ID	Add Edit Delete (To let users access shared resources, add them here.)	
1	Jack	
USB Device	Remove USB Device	
USB Device Disk_sda1 mp3	Remove USB Device	

Figure 5-6-4

R/W:	Read and Write right.	
R:	Read right.	
N:	No right.	

At last click "Save" to apply your settings.

Step 3. Access shared file

To access resources on such storage device, double click "My Computer" on your PC and enter <u>\\192.168.1.1</u>.

💈 WDRT731U (192.168.1.1)		
<u>File E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools	Help	
🚱 Back 🝷 🕥 🕤 🏂 🔎 Se	aarch 😥 Folders 🛄 🗸	
Address 🕄 \\192.168.1.1		🖌 🏹 Go
Network Tasks	Download 😥 mp3	
Other Places 📎	System	
Details 🛛 🛞	H	

Figure 5-6-5

5.6.2 Printing Service

The USB printer service allows you to connect a USB printer to the device and thus all clients on your network can print anything they want on their PCs. The device can identify a printer automatically as long as it is successfully connected.

Navigation Menus	Printer		
Device Info	USB Printer		
Network		Save	
Security	Enable Printer	Restore	
Advanced		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
▶ Wireless		Help	
▼ USB			
> Storage			
▶ Printer			

The page includes the following fields:



Object	Description		
• Enable Printer:	Check/uncheck to enable/disable USB printer service.		
1.	GDI interface printers are not supported.		
Note 2.	Multifunction printers are not supported.		

Operation Instructions

Step 1. Correctly connect your USB printer to the USB port on the device.



Step 2. Enable printer service.

The printer will be detected automatically and the printer's information will be shown.

USB Printer		
Enable Printer		Save
Printer	disconnected	Rest
		Help

Figure 5-6-8

USB Printer		
Enable Printer		Save
Printer	HP LaserJet 1020	Restore
		Help

Figure 5-6-9

Windows XP Users

The following steps apply to Windows XP.

Step	3. On 3	your PC	(connected to	the device),	click "Start"	-"Settings"	-"Printers and Faxes"
------	---------	---------	---------------	--------------	---------------	-------------	-----------------------



Figure 5-6-10

Step 4. Select "Add a printer" on appearing window.



Figure 5-6-11

Step 5. Click "Next".



Figure 5-6-12

Step 6. Select "Local printer attached to this computer" and click ""Next.

Add Printer Wizard
Local or Network Printer The wizard needs to know which type of printer to set up.
Select the option that describes the printer you want to use:
O Local printer attached to this computer
E gratematically detect and installing integrand integrands
To set up a network printer that is not attached to a print server, use the "Local printer" option.
< <u>B</u> ack <u>N</u> ext > Cancel

Figure 5-6-13

Step 7. Select "Create a new port", Type of port: "Standard TCP/IP Port" and click "Next".

Figure 5-6-14

Step 8. Click "Next".



Figure 5-6-15

Step 9. Enter device's LAN IP address and click "Next". (The default IP address of WDRT-731U is 192.168.1.1)

Add Standard TCP/IP Printer Port Wizard 🛛 🛛 🔀				
Add Port For which device do you want to add a port?				
Enter the Printer Name or IP a	ddress, and a port name for the desired device.			
Printer Name or IP <u>A</u> ddress:	Printer Name or IP Address: 192.168.1.1			
Port Name:	IP_192.168.1.1			
	< <u>B</u> ack <u>N</u> ext>	Cancel		

Figure 5-6-16

Add Standard TCP/IP Printer Port Wizard	×
Additional Port Information Required The device could not be identified.	
The detected device is of unknown type. Be sure that: 1. The device is properly configured. 2. The address on the previous page is correct. Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.	
Device Type	
O <u>C</u> ustom <u>Settings</u>	
< <u>B</u> ack <u>N</u> ext > Cancel	

Step 10. Click "Standard" under Device Type and select "Generic Network Card", then click "Next".

Figure 5-6-17

	Complet CP/IP	ing the Add Standard Printer Port Wizard
Y	ou have sele	cted a port with the following characteristics.
s	NMP:	No
P	rotocol:	RAW, Port 9100
D D	evice:	192.168.1.1
P	ort Name:	IP_192.168.1.1
	dapter Type:	Generic Network Card
т	o complete th	is wizard, click Finish.

Step 11. Click "Finish".

Figure 5-6-18

Step 12. Select "Have Disk".

Select a suitable printer manufacturer and the printer model and click "**Next**". If your printer is not in the list, click "**Have Disk...**" to install the driver of the printer.

Add Printer Wizard	
Install Printer Software The manufacturer and model determine which printer software to use.	Ş
Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software.	on
Manufacturer Printers Agfa AGFA-AccuSet v52.3 Alps AGFA-AccuSet v52.3 Apollo AGFA-AccuSet 800 Apple AGFA-AccuSet 800 APS-PS AGFA-AccuSet 800SF v52.3 This driver is digitally signed. Windows Update Tell me why driver signing is important Windows Update	
< <u>B</u> ack <u>N</u> ext > Cance	:

Figure 5-6-19

Step 13. Click "Browse", select corresponding drive file and click "Open". At last click "OK".



Figure 5-6-20

Step 14. Click "Next".

After installation, the printer model will be added to the list.

Add Printer Wizard	
Install Printer Software The manufacturer and model determine which printer software to use.	Z
Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software.	
Printers	1
HP LaserJet 1020	
WHP LaserJet 1022	
W HP LaserJet 1022n	
W HP LaserJet 1022nw	
This driver is digitally signed. Windows Update Tell me why driver signing is important	5
< <u>B</u> ack <u>Next</u> Cancel	

Figure 5-6-21

Step 15. Define a name for the printer and click "Next".

Name Your Printer You must assign a name to this printe	er. 🖌
Type a name for this printer. Because name combinations of more than 31 c possible.	some programs do not support printer and server characters, it is best to keep the name as short as
Printer name:	
HP LaserJet 1020	
Do you want to use this printer as the	default printer?
⊙Yes	
O N <u>o</u>	

Figure 5-6-22

Step 16. Click "Finish".

Now you have added the network printer to the Windows XP PC successfully. The information of the printer is displayed in the following windows.

Add Printer Wizard		
	Completing the Add Printer Wizard	
	You specified	I the following printer settings:
	Name:	HP LaserJet 1020
	Share name:	<not shared=""></not>
	Port	IP_192.168.1.1
	Model:	HP LaserJet 1020
	Default:	Yes
	Test page:	Yes
	To close this	wizard click Finish
		< <u>B</u> ack Finish Cancel

Figure 5-6-23



Figure 5-6-24

Windows 7 Users

The following steps apply to Windows 7.

Step 3. On your Windows 7 PC (connected to the device), click "Start"——"Device and Printer" and select "Add a printer" on appearing window.



Figure 5-6-25

Add a device Add a printer Add a device Add a printer Image: Printer state Image: Printer state Image: Printer state Image:				
Add a device Add a printer • Devices (2) Start the Add Printer Wizard, which helps you install a printer	۶	Devices and Printers	 Hardware and So 	
Devices (2) Start the Add Printer Wizard, which helps you install a printer	?		Add a printer	Add a device
Bluetooth PROBOOK_ Travel 5220M Mouse Printers and Faxes (2)		Add Printer Wizard, which i install a printer	PROBOOK_ 5220M Faxes (2)	 Devices (2) Bluetooth Travel Mouse Printers and
Fax Microsoft XPS Document Writer 4 items			Microsoft XPS Document Writer 4 items	Fax

Figure 5-6-26

Step 4. Click "Next".

Step 5. Select "Add a Local Printer" and click ""Next.



Figure 5-6-27

Step 6.	Select "Create a new	port", Type of port:	"Standard TCP/IP Port"	and click "Next".
---------	----------------------	----------------------	------------------------	-------------------

🔒 Add Printer		>
Choose a printer port A printer port is a type of con	nection that allows your computer to exchange information with a printe	r.
Use an existing port:	LPT1: (Printer Port)	*
Oreate a new port:		
Type of port:	Local Port Local Port Standard TCP/IP Port	•
	Next Canc	el

Figure 5-6-28

Step 7. Enter your WDRT-731U's LAN IP address and click "Next".

🔒 🖶 Add Printer	
Type a printer hostnan	ne or IP address
Device <u>t</u> ype:	TCP/IP Device *
Hostname or IP <u>a</u> ddress:	192,168,1.1
Port name:	731U_USB
🔲 Query the printer and auto	matically select the driver to use
	Next Cancel

Figure 5-6-29

🕞 🖶 Add Printer	
Detecting TCP/IP port Detecting the TCP/IP port Windows will automatically move to the ne	ext page when the detection is done.
	<u>N</u> ext Cancel

Figure 5-6-30



.

Additional por	t information required
The device is not	found on the network. Be sure that:
1. The device is	turned on.
2. The network	is connected.
The device is	property configured.
 The address of If you think the a 	on the previous page is correct. ddress is not correct, click Back to return to the previous page. Then correct the
 The address of If you think the a address and perfi- device type below Device Type 	on the previous page is correct. Iddress is not correct, click Back to return to the previous page. Then correct the orm another search on the network. If you are sure the address is correct, select t w.
 The address of If you think the a address and perfi- device type below Device Type <u>S</u>tandard 	on the previous page is correct. Iddress is not correct, click Back to return to the previous page. Then correct the orm another search on the network. If you are sure the address is correct, select t w. Generic Network Card

Figure 5-6-31

Step 9. Select "Have Disk".

🚽 🖶 Add Printer		
Install the printer o	driver	
Choose your p	printer from the list. Click Windows Update to see more models.	
To install the c	driver from an installation CD, click Have Disk.	
Manufacturer	Printers	
Manufacturer Brother	Printers	
Manufacturer Brother Canon	Printers Brother DCP-116C Brother DCP-117C	-
Manufacturer Brother Canon Epson	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C	
Manufacturer Brother Canon Epson Fuji Xerox	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C Brother DCP-129C	
Manufacturer Brother Canon Epson Fuji Xerox	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C Brother DCP-129C Denther DCP 129C	•
Manufacturer Brother Canon Epson Fuji Xerox Canania This driver is digita	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C Brother DCP-129C Printers Windows Update	Have Disk
Manufacturer Brother Canon Epson Fuji Xerox Canada Fuji Xerox Canada This driver is digita	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C Brother DCP-129C Printers Windows Update	▲ ↓ Have Disk
Manufacturer Brother Canon Epson Fuji Xerox Commission This driver is digital Tell me why driver	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C Brother DCP-129C Prother DCP-129C Prother DCP-129C Undows Update signing is important	Have Disk
Manufacturer Brother Canon Epson Fuji Xerox Commission This driver is digita <u>Tell me why driver</u>	Printers Printers Brother DCP-116C Brother DCP-117C Brother DCP-128C Brother DCP-129C Printers Windows Update signing is important	Have Disk

Figure 5-6-32

Step 10. Click "Browse", select corresponding drive file and click "Open". At last click "OK".



Figure 5-6-33

Step 11. Click "Next".

After installation, the printer model will be added to the list. Choose the right printer and click "Next".

			×
9	Add	Printer	
I	Install	the printer driver	
		Choose your printer from the list. Click Windows Update to see more models.	
		To install the driver from an installation CD, click Have Disk.	
Г			
	Printer	5	
	HP	LaserJet 1020	
	HP	LaserJet 1022	
	HP	LaserJet 1022n	
	🔄 HP I	LaserJet 1022nw	
		<u>W</u> indows Update <u>H</u> ave Disk	
		<u>N</u> ext Ca	incel

Figure 5-6-34

Step 1	12.	Define a	name	for	the	printer	and	click	"Next".	
--------	-----	----------	------	-----	-----	---------	-----	-------	---------	--

🚔 Add Printer		
Type a printer	name	
<u>P</u> rinter name:	HP LaserJet 1020	
This printer will be	installed with the HP LaserJet 1020 driver.	
		<u>N</u> ext Cancel



Step 13. You can choose to share the printer or not. Then click "Next".

Add Printer	
Printer Sharing	
If you want to share t type a new one. The	this printer, you must provide a share name. You can use the suggested name or share name will be visible to other network users.
 Do not share this Share this printer 	printer so that others on your network can find and use it
 Do not share this Share this printer Share name: 	printer so that others on your network can find and use it HP LaserJet 1020
 Do not share this Share this printer Share name: Location: 	printer so that others on your network can find and use it HP LaserJet 1020

Figure 5-6-36

Step 14. After installing the correct printer driver, the windows wizard shows the model name of the new network printer. You can choose to print a test page or click "Finish" to exit the wizard.

🖶 Add Printer	
You've successfully added HP LaserJet 102	20
To check if your printer is working properly, or to see tr test page. Print a test page	oubleshooting information for the printer, print
	<u>F</u> inish Cance

Figure 5-6-37

The new network printer that attached to the WDRT-731U is now available for printing.

					x
	 Hardware and Sound Devices and Prin 	iters 👻 🍫	Search Devices and Pri	inters	٩
Add a device	Add a printer See what's printing	Manage default pri	nters »		?
Devices (2)					
Bluetooth Travel Mouse	Faxes (3) Fases (3) FaserJet 1020 Faxes (3) Faxes				
	HP LaserJet 1020 State: 🕥 33 Model: HP LaserJet 10 Category: Printer	Status: 0 c	locument(s) in queue		

Figure 5-6-39

100Base-TX UTP
 1000Base-T UTP

- Audio Line / Video Line

5.7 IPTV Settings

The IPTV feature makes it possible to enjoy online videos on your TV set via a set-top box while surfing Internet. See below for the topology:



Navigation Menus	IPTV		
Device Info	IPTV		
Network		_	Save
Security	Enable IPTV		
Advanced	Enable IPTV STB Port		Restore
Wireless			Help
→ USB			
▼ IPTV			
▶ IP TV			



The page includes the following fields:

Object	Description
• Enable IPTV:	Check/uncheck to enable/disable the IPTV feature.
Enable IPTV STB Port:	Check/uncheck to enable/disable the IPTV-specific port.

Note:

- 1. If you enabled both options mentioned above, then note below:
 - (a). Set IPTV connection type to DHCP/dynamic IP or static IP if the set-top box is connected to any LAN port from 1-3.
 - (b). Select the dial mode provided by your ISP if the set-top box is connected to the IPTV-specific port.

Note that the IP address of the set-top-box or smart TV should be on the same IP
net segment as router's WAN IP.

- After the IPTV port is set for IPTV purpose, PC that connects to such port will not be able to obtain an IP address or access Internet. So think twice before you start. Plus, LAN ports1-3 can only be used to connect PCs instead of an IPTV set-top box.
- 3. The IPTV feature does not support wireless access.

5.8 Tools

System tools include the following 8 submenus. Clicking any of them enters corresponding interface for configuration. Below explains, in details, each such feature.



5.8.1 Time Settings

This section assists you in setting the device's system time; you can either select to set the time and date manually or automatically obtain the GMT time from Internet.

lime & Date	
This section assists you in setting the device's curr from Internet automatically.	rent time; you can either select to set the time and date manually or update it
Note: The configured time and date settings lose where the router connects to the Internet. To activate time correctly first, either manually or automatically.	hen the device is powered off.However,it will be updated automatically when e-based features(e.g.firewall),the time and date information shall be set
Sync with Internet time servers	Sync Interval: 2 hours
Time Zone: (GMT)Greenwich Mean Time	
Time Bone. Town Jorgen Wich Mean Time	
(Note: GMT time will be updated automatically of	only when the device is connected to Internet.)
(Note: GMT time will be updated automatically of Please input time and date:	only when the device is connected to Internet.)

Figure 5-8-1

The page includes the following fields:

Object	Description
• Sync with Internet time servers:	Time and date will be updated automatically from Internet.
Sync Interval:	Determines a time length when device periodically updates its time and
	date info from Internet. The default is 2 hours.
• Time Zone:	Select your current time zone.
Copy Local Time:	Click it to copy your PC's time to the device.

5.8.2 Firmware Upgrade

Firmware upgrade is released periodically to improve the functionality of your device and also to add new features. If you run into a problem with a specific feature of the device, log on to our website <u>www.planet.com.tw</u> to download the latest firmware to update your device.

irmware Upgrade	
Firmware Upgrade	
Use this section to update your	router's software for better functionality or new features.
Select a Software File:	Browse Upgrade
Current System Version: WDR7	r-731U_V2.0.1.0_EN_PLA01; Release Date:Sep 20 2012
Note: do not power off the route When it it complete, the device w	er while upgrading otherwise it may be permanently damaged.Upgrading takes a few minutes. vill reboot automatically.



To update firmware, do as follows:

- 1. Click "Browse" to locate the firmware and "Upgrade" to update.
- 2. Router will reboot automatically when upgrade completes.



Do not disconnect the device from your management PC (the PC you use to configure the device) or power off it during the upgrade process; otherwise, it may be permanently damaged. The device will restart automatically when the upgrade process, which takes several minutes, completes.

5.8.3 Backup/Restore Settings

This section allows you to backup current settings or to restore the previous settings configured on the device.

Backup&Restore					
Backup & Restore					
Use this section to backup	current settings or restore previou	us settings.			
Load Settings from Local Hard	ard Drive:	Browse Restore			

Figure 5-8-3

The page includes the following fields:

Object	Description	
	Once you have configured the device the way you want it, you can save	
	these settings to a configuration file on your local hard drive that can	
Backup Settings:	later be imported to your device in case that the device is restored to	
	factory default settings.	
	To do this, click the "Backup" button and specify a directory to save	
	settings on your local hardware.	
Restore Settings:	Click the "Browse" button to locate and select a configuration file that is saved previously to your local hard drive. And then click the "Restore" button to reset your device to previous settings.	

5.8.4 Restore to Factory Default Settings

To restore all settings to the device's factory default values, click the "Restore to Factory Default" button:

F	Restore to Default	
	Restore To Default	
	To restore factory defaults, click the "Restore to Factory Default" button below. Restore to Factory Default	Help


Factory Default Settings:

User Name: admin

Password: admin

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0



To activate your settings, you need to reboot the device after you reset it.

5.8.5 Change Password/User Name

This section allows you to change login password and user name for accessing device's Web-based interface.

User Name & Password Use this section to change your login user name and password. Note: User name and password can only include letters, numbers or underscore! Old User Name	Save
Use this section to change your login user name and password. Note: User name and password can only include letters, numbers or underscore!	Save
Old User Name	Restore
	Restore
Old Password	Help
New User Name	
New Password	
Confirm New Password	

Figure 5-8-5

The page includes the following fields:

Object	Description
Old Password / User Name:	Enter the old password/user name.
New Password / User Name:	Enter a new password/user name.
Confirm New Password:	Re-enter the new password for confirmation.
• Save:	Click it to save new settings.



For the sake of security, it is highly recommended that you change default login password and user name.

5.8.6 Reboot

This section allows you to reboot the device.

Reboot	
Reboot	
Click the button below to restart your router.	
Reboot	

Figure 5-8-6

To restart your device, click the "Reboot" button.



Figure 5-8-7

Reboot Reboot		
Click the button belo	w to restart your router.	
Reboot		
		-
	Rebooting, please wait11%	

Figure 5-8-8

5.8.7 Statistics

Statistics displays current traffic of PCs on your LAN.

You can view the bandwidth usage on your LAN using the statistics feature, for better management of network resources.

🗹 Enable Traf	fic Statistics						
Rate Unit: KB	/s (Kbyte per second) Refresh		Display [In descendir	ng order of c	lownstream	rate 🚩
ID	IP Address	†Packets	†Bytes	↓Packets	↓Bytes	↑Ratio	↓Rate
1	192.168.1.140	0	0M	0	0M	0.00	0.00
2	192.168.1.20	0	0M	0	0M	0.00	0.00



The page includes the following fields:

Object	Description
Enable Traffic Statistics:	Check/uncheck the box to enable/disable the Traffic Statistics feature.
Refresh:	Click to update statistic data.
• Clear:	Click to remove statistic data.
• Ratio:	The quantitative relation between broadcast packets and the forwarded packets. Normally, if this value exceeds 10%, there may be problems present in some PC on the network.



Enabling the Traffic Statistics feature may degrade router's packet processing capacity. So, do not enable it unless necessary.

5.8.8 Syslog

The Syslog option allows you to view all events that occur upon system startup and check whether there is attack present in your network.

The logs are classified into 3 types: "All", "System "and "WAN".

iew Lo	g			
			Type of logs to display: All	Refresh
Index			Log Content	clear
2	1970-01-01 00:00:11	system	DHCP_GUEST Server Start	8
1	1970-01-01 00:00:11	system	DHCP Server Start	

Figure 5-8-10

Chapter 6. Quick Connection to a Wireless Network

6.1 Windows XP (Wireless Zero Configuration)

Step 1: Right-Click on the wireless network icon displayed in the system tray



Figure 6-1

Step 2: Select [View Available Wireless Networks]

Step 3: Highlight and select the wireless network (SSID) to connect

- (1) Select SSID [PLANET]
- (2) Click the [Connect] button



Figure 6-2

Step 4: Enter the encryption key of the Wireless Router

- (1) The Wireless Network Connection box will appear
- (2) Enter the encryption key that configured in section 5.6.2
- (3) Click the [Connect] button

Wireless Network Conne	ection	×
The network 'PLANET' require A network key helps prevent	es a network key (also called a WEP key or WPA key). unknown intruders from connecting to this network.	
Type the key, and then click	Connect.	
Network <u>k</u> ey:	•••••	
Confirm network key:	••••••	
	<u>Connect</u> Cancel	

Figure 6-3

Step 5: Check if "Connected" is displayed



Figure 6-4



Some laptops are equipped with an "Wireless ON/OFF" switch for the internal wireless LAN, make sure the hardware wireless switch is switch to "ON" position.

6.2 Windows 7 (WLAN AutoConfig)

WLAN AutoConfig service is built-in in Windows 7 that can be used to detect and connect to wireless network. This built-in wireless network connection tool is similar to wireless zero configuration tool in Windows XP.





Step 2: Highlight and select the wireless network (SSID) to connect

- (1) Select SSID [defauld_2.4G]
- (2) Click the [Connect] button

Not connected	47	^
Connections are available		
Wireless Network Connection	^	=
default_2.4G	llte	
Connect automatically	ct	
default_5G	llte	
link		
juntion_wap	ııl	-
Open Network and Sharing Cente	er	

Figure 6-6

If you will be connecting to this Wireless Router in the future, checking [Connect automatically].

Step 4: Enter the encryption key of the Wireless Router

Note

(1) The Connect to a Network box will appear

- (2) Enter the encryption key that configured in section 5.6.2
- (3) Click the [OK] button

😰 Connect to a Network	x
Type the network security key	
Security key:	
Hide characters	
You can also connect by pushing the button on the router.	
OK Can	cel

Figure 6-7

P Connect to a Network	×
Connecting to default_2.4G	
	Cancel



Step 5: Check if "Connected" is displayed



Figure 6-9

6.3 Mac OS X 10.x

Step 1: Right-Click on the network icon displayed in the system tray

The AirPort Network Connection menu will appear



Figure 6-10

Step 2: Highlight and select the wireless network (SSID) to connect

- (1) Select and SSID [PLANET]
- (2) Double-click on the selected SSID



Figure 6-11

Step 4: Enter the encryption key of the Wireless Router

- (1) Enter the encryption key that configured in section 5.6.2
- (2) Click the [OK] button

The n	etwork "PLANET" requires a WPA password
Pas	sword:
	Show password
	Remember this network
	Cancel OK

Figure 6-12



Step 5: Check if the AirPort is connect to the selected wireless network.

If "Yes", then there will be a "check" symbol in the front of the SSID.



Figure 6-13

6.4 iPhone / iPod Touch / iPad

Step 1: Tap the [Settings] icon displayed in the home screen



Figure 6-14

Step 2: Check Wi-Fi setting and select the available wireless network

- (1) Tap [General] \ [Network]
- (2) Tap [Wi-Fi]

If this is the first time to connect to the Wireless Router, it should shows "Not Connected".

iPad	10:35 AM	@ 100% 🔳
Settings	General	
Airplane Mode OFF		
SWI-FI Not Connected	About	>
Notifications On	Usage	>
Carrier	Sounds	>
😰 Cellular Data		
🙀 Brightness & Wallpaper	Network	>
Picture Frame	Bluetooth	Off >
Seneral	Location Services	On >
Mail, Contacts, Calendars	Spotlight Search	>
🧭 Safari		

Figure 6-15

iPad	10:35 AM	@ 100% 🔳
Settings	General	Vetwork
Airplane Mode OFF		
SWI-FI Not Connected	VPN	Not Connected >
Notifications On	Wi-Fi	Not Connected >
Carrier		
Cellular Data		
Brightness & Wallpaper		
Picture Frame		
General		
Mail, Contacts, Calendars		
Safari		

Figure 6-16

Step 3: Tap the target wireless network (SSID) in "Choose a Network..."

- (1) Turn on Wi-Fi by tapping "Wi-Fi"
- (2) Select SSID [PLANET]

iPad	10:35 AM	100% 100%
Settings	Notwork Wi-Fi Netwo	rks
Airplane Mode	1	
Wi-Fi Not Connected	Wi-Fi	ON
Notifications On	Choose a Network	
Carrier	PLANET	₽ 🇢 🧿
🔀 Cellular Data	Other	>
🙀 Brightness & Wallpaper	Ask to Join Networks	ON
Picture Frame	Known networks will be joined automatically. If no known networks are available, you will be asked before joining a new network.	
Seneral		
G Mail, Contacts, Calendars		

Figure 6-17

Step 4: Enter the encryption key of the Wireless Router

- (1) The password input screen will be displayed
- (2) Enter the encryption key that configured in section 5.6.2
- (3) Tap the [Join] button

iPad	10:36 AM			2 100%
Settings		Wi-Fi Netw	rorks	
Airplane Mode	OFF			-
WI-FI Not Conne	ected Wi-Fi		01	
Notifications	On Choose a	Network		
Carrier	PLANET	ET WNRT-617"		0
Cellular Cont	Enter Passw	ord	- 6	2
Brightne				
Picture I Password				10
General			a sta	972
Mail, Co			- 8	
Safari				
iPod				
Video				
Photos				
Notes				
Store				
Apps				
QWER	ТҮ	UI	0 P	Ø
ASD	FGH	JK	L	Join
⇔ z x c	V B	N M	! ?	ŵ
.7123			.?123	ē

Figure 6-18

Step 5: Check if the iDevice is connect to the selected wireless network.

If "Yes", then there will be a "check" symbol in the front of the SSID.



Figure 6-19

Appendix A: Troubleshooting

If you found the router is working improperly or stop responding to you, please read this troubleshooting first before contacting the dealer for help,. Some problems can be solved by yourself within very short time.

Scenario	So	lution
The router is not responding	a.	Please check the connection of the power cord and the
to me when I want to access		Ethernet cable of this router. All cords and cables should
it by web browser.		be correctly and firmly inserted to the router.
	b.	If all LEDs on this router are off, please check the status
		of power adapter, and make sure it is correctly powered.
	C.	You must use the same IP address section which router uses.
	d.	Are you using MAC or IP address filter? Try to connect
		the router by another computer and see if it works; if not,
		please reset the router to the factory default settings
		(pressing 'reset' button for over 10 seconds).
	e.	Set your computer to obtain an IP address automatically
		(DHCP), and see if your computer can get an IP
		address.
	f.	If you did a firmware upgrade and this happens, contact
		your dealer of purchase for help.
	g.	If all the solutions above don't work, contact the dealer
		for help.
I can't get connected to the	a.	Go to 'Status' -> 'Internet Connection' menu, and check
Internet.		Internet connection status.
	b.	Please be patient, sometime Internet is just that slow.
	C.	If you connect a computer to Internet directly before, try
		to do that again, and check if you can get connected to
		Internet with your computer directly attached to the
		device provided by your Internet service provider.
	d.	Check PPPoE / L2TP / PPTP user ID and password
		again.
	e.	Call your Internet service provide and check if there's
		sometning wrong with their service.
	T.	If you just can't connect to one or more website, but you
	9	The to report the router and the again later
	у. b	Poset the device provided by your Internet service
	11.	novider too
	i	Try to use IP address instead of hostname. If you can
	1.	use IP address to communicate with a remote server
		but can't use hostname, please check DNS setting

I can't locate my router by my	a.	'Broadcast ESSID' set to off?
wireless device.	b.	All two antennas are properly secured.
	C.	Are you too far from your router? Try to get closer.
	d.	Please remember that you have to input ESSID on your
		wireless client manually, if ESSID broadcast is disabled.
File download is very slow or	a.	Are you using QoS function? Try to disable it and try
breaks frequently.		again.
	b.	Internet is slow sometimes, being patient.
	c.	Try to reset the router and see if it's better after that.
	d.	Try to know what computers do on your local network. If
		someone's transferring big files, other people will think
		Internet is really slow.
	e.	If this never happens before, call you Internet service
		provider to know if there is something wrong with their
		network.
I can't log into the web	a.	Make sure you're connecting to the correct IP address of
management interface; The		the router!
password is wrong.	b.	Password is case-sensitive. Make sure the 'Caps Lock'
p		light is not illuminated.
	C.	If you really forget the password, do a hard reset.
The router becomes hot	a.	This is not a malfunction, if you can keep your hand on
		the router's case.
	b.	If you smell something wrong or see the smoke coming
		out from router or A/C power adapter, please disconnect
		the router and A/C power adapter from utility power
		(make sure it's safe before you're doing this!), and call
		your dealer of purchase for help.

Appendix B: Configuring the PC in Windows 7

In this section, we'll introduce how to configure the TCP/IP correctly in Windows 7. First make sure your Network Adapter is working, refer to the adapter's manual if needed.

- 1) On the Windows taskbar, click the Start button, and then click Control Panel.
- 2) Click the **Network and Sharing Center** icon, and then click the **Change adapter settings** on the left side of the screen.



Figure B-1

3) Right click the icon of the network adapter shown in the figure below, and select Properties on the prompt window.

Organize Disable this network	device Diagnose this connection	Rename this connection
Local Area Connection Network 3 Broadcom NetLink (TM) Gid	Wireless Network Not connected Intel(R) Wireless V	Connection WiFi Link 4965AG
6	Disable Status Diagnose Bridge Connections	
6	Create Shortcut Delete Rename	
6	Properties N	

Figure B-1

4) In the prompt page shown below, double click on the Internet Protocol Version 4 (TCP/IPv4).

Broadcom NetLi	nk (TM) Gigabit Etherne	t
		Configure
This connection uses th	e following items:	
Client for Micros	oft Networks	
AVG network filt	er driver	
QoS Packet Sc	heduler	
File and Printer	Sharing for Microsoft Ne	tworks
Internet Protoco	Version 6 (TCP/IPv6)	
🗹 📥 Internet Protoco	I Version 4 (TCP/IPv4)	
🗹 📥 Link-Layer Top	ology Discovery Mappe	r I/O Driver
🗹 📥 Link-Layer Top	ology Discovery Respo	nder
Install	Uninstall	Properties
Description		12
Transmission Contro	Protocol/Internet Proto	col. The default wide
riansinission condo		

Figure B-3

5) The following **TCP/IP Properties** window will display and the **IP Address** tab is open on this window by default.

Now you have two ways to configure the **TCP/IP** protocol below:

Setting IP address automatically

Select **Obtain an IP address automatically**, Choose **Obtain DNS server address automatically**, as shown in the Figure below:

Internet Protocol Version 4 (TCP/IP)	v4) Proper	ties		? X	
General Alternate Configuration					
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.					
Obtain an IP address automatic	ally				
Use the following IP address:					
IP address:					
S <u>u</u> bnet mask:					
Default gateway:	•		•		
Obtain DNS server address auto	omatically				
— Use the following DNS server a	ddresses				
Preferred DNS server:		14	14		
Alternate DNS server:		14	•		
Validate settings upon exit			Adv	anced	
		ОК		Cancel	

Figure B-4

Setting IP address manually

- 1 Select **Use the following IP address** radio button.
- 2 If the Router's LAN IP address is 192.168.1.1, type in IP address 192.168.1.x (x is from 2 to 254), and **Subnet mask** 255.255.255.0.
- 3 Type the Router's LAN IP address (the default IP is 192.168.1.1) into the **Default gateway** field.
- 4 Select Use the following DNS server addresses radio button. In the Preferred DNS Server field you can

type the DNS server IP address which has been provided by your ISP

General	
You can get IP settings assigned supports this capability. Otherwis administrator for the appropriate	automatically if your network se, you need to ask your network e IP settings.
Obtain an IP address autom	natically
• Use the following IP addres	S:
IP address:	192.168.1.123
S <u>u</u> bnet mask:	255.255.255.0
Default gateway:	192.168.1.1
Obtain DNS server address	automatically
OUSe the following DNS serve	er addresses
Preferred DNS server:	192.168.1.1
Alternate DNS server:	
Validate settings upon exit	Ad <u>v</u> anced

Figure B-5

Now click **OK** to keep your settings.

Appendix C: Specifications

Duration	WDRT-731U			
Product	300Mbps Dual-Band 802.11n Wireless Gigabit Router			
Hardware Specification				
	WAN Port:	1 x 10/100/100	0Mbps Auto MDI/MDI-X RJ45 port	
Interfece	LAN Port:	3 x 10/100/100	0Mbps Auto MDI/MDI-X RJ45 ports (LAN1~3)	
Interface	IPTV Port:	1 x 10/100/100	0Mbps Auto MDI/MDI-X RJ45 port (LAN4)	
	USB Port :	USB 2.0, Type-	A, 5V DC/0.5A Output	
Antonno	Gain: 2 x 5dBi fixed antenna			
Antenna	Orientation: Omni-directional			
	Reset / WPS button at rear panel			
Reset / WPS Button	Press for about 7 seconds to reset the device to factory default.			
	Press for 1 second to activate WPS function.			
	PWR/SYS, W	′LAN (2.4G & 5G) x 2	
	WAN (Link &	1000Mbps) x 1		
LED Indicators	LAN (Link & 1	000Mbps) x 3		
	IPTV (Link &	IPTV (Link & 1000Mbps) x 1		
	USB, WPS	USB, WPS		
Material	Plastic			
Dimension (WxDxH)	171.61 x 111.16 x 25.47 mm (W x D x H)			
Weight	250g			
Power Requirement	12V DC, 1A			
Wireless interface Specif	cation			
Standard	Compliance v	vith IEEE 802.11a	a/b/g/n	
	Simultaneous	2.4 GHz and 5 (GHz	
Frequency Band	2.4GHz: 2.412~2.484GHz			
	5GHz: 5.180~5.825GHz			
Transmission	Indoor up to 1	Indoor up to 100m		
Distance	Outdoor up to 300m (it is limited to the environment)			
	2 4GHz [.]		5GHz	
RF Power	11b: 17+1d	Bm	11a: 12+1.5dBm	
(Intentional Radiator)	11g: 14.5±	1.5dBm	11n: 12±1.5dBm	
	11n: 12.5±	1.5dBm		
Wireless Management Fe	eatures			
Wireless Modes		0		
	■ WDS Pt	ЛР		
Energy the O	■ WEP (64	/128-bit)		
Encryption Security	WPA-PS		-PSK (AES)	
	■ WPA (TK	(AES) / WPA2 (AES	6)	
Wireless Security	Provide Wirel	ess LAN ACL (Ad	ccess Control List) filtering	
Wireless MAC address filtering]		

	Support WPS (WIFI Protected Setup)			
	Support Dual-SSID (2.4G & 5G)			
Wireless Advanced	AP Isolation: Enable it to isolate each connected wireless clients, to let them			
	cannot access mutually.			
	Support 802.11e WMM (Wi-Fi Multimedia)			
Max. Supported	Wire: 15			
Clients	Wireless: 10			
Router Features				
Internet Connection Type	 Shares data and Internet access for users, supporting following internet access: Dynamic IP Static IP PPPoE PPTP L2TP PPPoE Dual Access 			
	NAT firewall			
Firewall	Built-in NAT server which supports Virtual Server, and DMZ			
	Built-in firewall with IP address filtering, Port filtering, URL filtering, and MAC			
	address filtering			
Routing Protocol	Static Routing			
	Built-in DHCP server supporting static IP address distributing			
	Support UPnP, Dynamic DNS			
LAN	Support Packets Statistics			
	IP-based Bandwidth Control			
	Session Number: Max. 8000			
	Web-based (HTTP) management interface			
System Management	Remote management (WAN Access Control)			
oyotom management	SNTP time synchronize			
	System Log			
	Windows 7			
OS Compatibility	Windows Vista			
Compatibility	Windows XP			
	Mac OS X 10.4 and higher			

Appendix D: Glossary

- 802.11n 802.11n builds upon previous 802.11 standards by adding MIMO (multiple-input multiple-output). MIMO uses multiple transmitter and receiver antennas to allow for increased data throughput via spatial multiplexing and increased range by exploiting the spatial diversity, perhaps through coding schemes like Alamouti coding. The Enhanced Wireless Consortium (EWC) [3] was formed to help accelerate the IEEE 802.11n development process and promote a technology specification for interoperability of next-generation wireless local area networking (WLAN) products.
- 802.11b The 802.11b standard specifies a wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.4GHz, and WEP encryption for security. 802.11b networks are also referred to as Wi-Fi networks.
- 802.11g specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology, using OFDM modulation and operating in the unlicensed radio spectrum at 2.4GHz, and backward compatibility with IEEE 802.11b devices, and WEP encryption for security.
- DDNS (Dynamic Domain Name System) The capability of assigning a fixed host and domain name to a dynamic Internet IP Address.
- DHCP (Dynamic Host Configuration Protocol) A protocol that automatically configure the TCP/IP parameters for the all the PC(s) that are connected to a DHCP server.
- DMZ (Demilitarized Zone) A Demilitarized Zone allows one local host to be exposed to the Internet for a special-purpose service such as Internet gaming or videoconferencing.
- DNS (Domain Name System) An Internet Service that translates the names of websites into IP addresses.
- **Domain Name -** A descriptive name for an address or group of addresses on the Internet.
- DSL (Digital Subscriber Line) A technology that allows data to be sent or received over existing traditional phone lines.
- > **ISP** (Internet Service Provider) A company that provides access to the Internet.
- > MTU (Maximum Transmission Unit) The size in bytes of the largest packet that can be transmitted.
- NAT (Network Address Translation) NAT technology translates IP addresses of a local area network to a different IP address for the Internet.
- PPPoE (Point to Point Protocol over Ethernet) PPPoE is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.

- SSID A Service Set Identification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID. This is typically the configuration parameter for a wireless PC card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name.
- WEP (Wired Equivalent Privacy) A data privacy mechanism based on a 64-bit or 128-bit or 152-bit shared key algorithm, as described in the IEEE 802.11 standard.
- Wi-Fi A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, see http://www.wi-fi.net), an industry standards group promoting interoperability among 802.11b devices.
- WLAN (Wireless Local Area Network) A group of computers and associated devices communicate with each other wirelessly, which network serving users are limited in a local area.



EC Declaration of Conformity

For the following equipment:

*Type of Product	:	300Mbps Dual Band 802.11n Wireless G	igabit Router with USB
*Model Number	:	WDRT-731U	
* Produced by:			
Manufacturer's Nar	ne :	Planet Technology Corp.	
Manufacturer's Address:		10F., No.96, Minquan Rd., Xindian Dist.,	
		New Taipei City 231, Taiwan (R.O.C.)	

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to 1999/5/EC R&TTE. For the evaluation regarding the R&TTE the following standards were applied:

EN 300 328 V1.7.1	(2006-10)
EN 301 893 V1.5.1	(2008-12)
EN 301 489-1 V1.8.1	(2008-04)
EN 301 489-17 V2.1.1	(2009-05)
EN 50385	(2002)
EN 60950-1	(2006+A11:2009+A1:2010+A12:2011)

Responsible for marking this declaration if the:

⊠ Manufacturer Authorized representative established within the EU

Authorized representative established within the EU (if applicable):

Company Name: Planet Technology Corp.

Company Address: 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

Person responsible for making this declaration

Name, Surname Kent Kang

Position / Title : Product Manager

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Taiwan Place

<u>16th Nov, 2012</u> Date

Legal Signature

PLANET TECHNOLOGY CORPORATION

EC Declaration of Conformity

English	Hereby, PLANET Technology Corporation , declares that this 802.11n Wireless Gigabit Router is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.	Lietuviškai	Šiuo PLANET Technology Corporation ,, skelbia, kad 802.11n Wireless Gigabit Router tenkina visus svarbiausius 1999/5/EC direktyvos reikalavimus ir kitas svarbias nuostatas.	
Česky	Společnost PLANET Technology Corporation, tímto prohlašuje, že tato 802.11n Wireless Gigabit Router splňuje základní požadavky a další příslušná ustanovení směrnice 1999/5/EC.	Magyar	A gyártó PLANET Technology Corporation , kijelenti, hogy ez a 802.11n Wireless Gigabit Router megfelel az 1999/5/EK irányelv alapkövetelményeinek és a kapcsolódó rendelkezéseknek.	
Dansk	PLANET Technology Corporation, erklærer herved, at følgende udstyr 802.11n Wireless Gigabit Router overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF	Malti	Hawnhekk, PLANET Technology Corporation, jiddikjara li dan 802.11n Wireless Gigabit Router jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC	
Deutsch	Hiermit erklärt PLANET Technology Corporation , dass sich dieses Gerät 802.11n Wireless Gigabit Router in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi)	Nederlands	Hierbij verklaart , PLANET Technology orporation, dat 802.11n Wireless Gigabit Router in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG	
Eestikeeles	Käesolevaga kinnitab PLANET Technology Corporation , et see 802.11n Wireless Gigabit Router vastab Euroopa Nõukogu direktiivi 1999/5/EC põhinõuetele ja muudele olulistele tingimustele.	Polski	Niniejszym firma PLANET Technology Corporation , oświadcza, że 802.11n Wireless Gigabit Router spełnia wszystkie istotne wymogi i klauzule zawarte w dokumencie "Directive 1999/5/EC".	
Ελληνικά	ME THN ΠΑΡΟΥΣΑ , PLANET Technology Corporation, $\Delta H \land \Omega N E I$ OTI AYTO 802.11n Wireless Gigabit RouterΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ $\land O I Π E \Sigma$ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ	Português	PLANET Technology Corporation, declara que este 802.11n Wireless Gigabit Router está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.	
Español	Por medio de la presente, PLANET Technology Corporation, declara que 802.11n Wireless Gigabit Router cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE	Slovensky	Výrobca PLANET Technology Corporation, týmto deklaruje, že táto 802.11n Wireless Gigabit Router je v súlade so základnými požiadavkami a ďalšími relevantnými predpismi smernice 1999/5/EC.	
Français	Par la présente, PLANET Technology Corporation , déclare que les appareils du 802.11n Wireless Gigabit Router sont conformes aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE	Slovensko	PLANET Technology Corporation, s tem potrjuje, da je ta 802.11n Wireless Gigabit Router skladen/a z osnovnimi zahtevami in ustreznimi določili Direktive 1999/5/EC.	
Italiano	Con la presente , PLANET Technology Corporation, dichiara che questo 802.11n Wireless Gigabit Router è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.	Suomi	PLANET Technology Corporation, vakuuttaa täten että 802.11n Wireless Gigabit Router tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.	
Latviski	Ar šo PLANET Technology Corporation, apliecina, ka šī 802.11n Wireless Gigabit Router atbilst Direktīvas 1999/5/EK pamatprasībām un citiem atbilstošiem noteikumiem.	Svenska	Härmed intygar, PLANET Technology Corporation , att denna 802.11n Wireless Gigabit Router står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.	