

3G BRANDBAND ROUTER USER GUIDE

Trade Name: Longcheer

Model Name: WR7310

Notice

The information in this manual is subject to change without notice. Every effort has been made in the preparation of this manual to ensure accuracy of the contents. But all statements, information, and recommendations in this manual do not constitute the warranty of any kind, expressed or implied.

Safety Precautions

Read the safety precautions carefully to ensure the correct and safe use of your wireless device.

	Do not switch on your device when the device use is prohibited or when the device use may cause interference or danger.
	Follow the rules or regulations in hospitals and health care facilities. Switch off your device near medical apparatus.
	Switch off your device in an aircraft. The device may cause interference to control signals of the aircraft.
	Switch off your device near high-precision electronic devices. The device may affect the performance of these devices.
	Do not attempt to disassemble your device or its accessories. Only qualified personnel are allowed to service or repair the device.
	Do not place your device or its accessories in containers with strong electromagnetic field.
	Do not place magnetic storage media near your device. Radiation from the device may erase the information stored on them.
	Do not put your device in a high-temperature place or use it in a place with flammable gas such as a gas station.
	Keep your device and its accessories away from children. Do not allow children to use your device without guidance.
	Use approved batteries and chargers only to avoid explosion.
	Observe the laws or regulations on device use. Respect others' privacy and legal rights when using your device.

It is recommended that the equipment only be used in the environment where temperature is between 0°C and 50°C and humidity is between 10% to 90%. Keep the equipment in the environment where temperature is between -10°C and 70°C or humidity is between 10% to 90%.

Contents

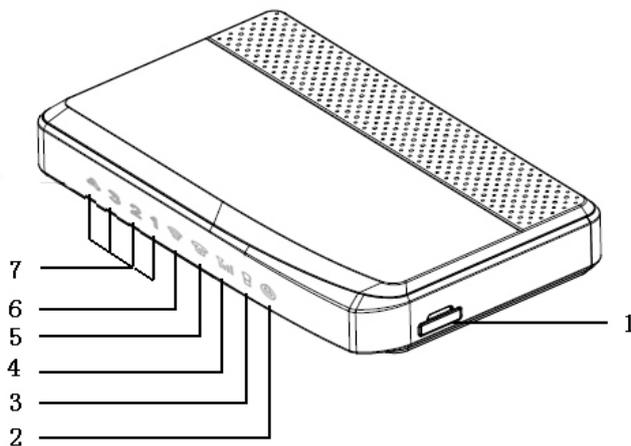
Notice	I
Safety Precautions	I
1. OVERVIEW	1
Appearance	1
PC Configuration Requirement	2
2. QUICK START	3
Router Mode	3
Making a Call	4
Logging in to the Configuration Page	5
Describing the Configuration Page	5
3. QUICKLY SETUP 3G ROUTER	8
Quick Setup Page	8
Configuring the WLAN	8
Configuring the Manager Setting	8
Configuring Connection Settings	8
4. CONNECTING TO THE INTERNET	10
Connecting to the Internet	10
5. SMS AND CONTACTS APPLICATION	12
SMS Service	12
Contacts Service	13
6. BASIC SETTING	15
System Settings	15
LAN Settings	17
7. ADVANCED SETTINGS	19
Wireless Settings	19
Firewall Settings	21
Port Forwarding Settings	22
Routing	24

Network Settings	24
8. USB DEVICE APPLICATIONS	27
9. TYPICAL NETWORKING EXAMPLE	33
10. WARNING AND PRECAUTIONS	34
Electronic Device.....	34
Hospital.....	34
Traffic Safety	34
Storage Environment	34
Children Safety	35
Operating Environment.....	35
Cleaning and Maintenance	35

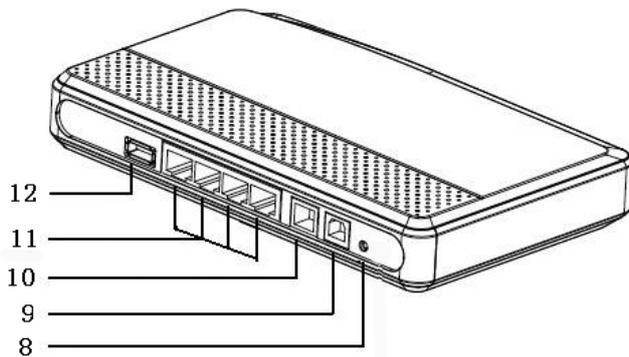
1. Overview

3G ROUTER wireless voice / data router, a top-performance Fixed Mobile Convergence device, offers a high speed wireless data connectivity on public HSPA networks. It is not only ideal for workgroups working in temporary locations, but also the easiest solution to complement or replace a fixed line access at home. Moreover, 3G ROUTER also offers traditional circuit-switched telephony service by simply plugging any plain telephone set to its analog RJ11 connector

Appearance



1. SIM Card Socket
2. Power Indicator
3. Diagnosis Indicator
4. 2G/3G Indicator
5. Coming Call Indicator
6. WLAN Indicator
7. Ethernet LAN Indicator



8. Reset Key
9. Power Port
10. Phone Port
11. Ethernet Port
12. USB Host Port

Introduction

ITEM	INTRODUCTION
SIM Card Socket	Insert the SIM card.
Power Indicator	It is light when the router is powered on.
Diagnosis Indicator	It is light during the start-up process, and winks after start-up finished. The indicator will be flickering when system error occurs.
2G/3G Indicator	<ul style="list-style-type: none"> ● Blinking in Green: Network searching ● Blinking slowly in Green: Having registered in 3G network ● Double blinking in Green: Working in 3G network

	<ul style="list-style-type: none"> ● Blinking slowly in Yellow: Having registered in 2G network ● Double blinking in Yellow: Working in 2G network ● Lighting in Red: Error. For example: No SIM card or network registering failed
Coming Call Indicator	It is flickering when having coming call.
WLAN Indicator	It is light when the Wi-Fi WLAN is ready.
Ethernet LAN Indicator	It is flickering when the LAN is being used.
Reset Key	Resume the factory setting and reboot the router
Power Port	Connect with a power adapter
Phone Port	Insert a phone cable to connect with phone set.
Ethernet Port	Insert an Ethernet cable to connect with PC or laptop.
USB Host Port	Insert USB cable to connect with a mass storage device or a USB printer.

Note: 3G ROUTER does not support the hot plug of the SIM card. Do not pull out the SIM card during the connection.

Note: USB host port only supports the unit storage device such as U disc in the format of FAT 32. Do not connect the power adapter or bulk USB device to the USB host port.

PC Configuration Requirement

- CPU: Pentium 500MHz or above
- Memory: 128MB RAM or above
- Hard Disk: 50MB available space
- Operating System: Windows 2000/XP/VISTA
- Display Resolving Power: 800 × 600 pels or above (1024 × 768 is recommended)
- Interface: Standard USB 2.0 interface
- Internet Browser: IE 6.0 or above edition / Firefox 1.5 above edition

2. Quick Start

Router Mode

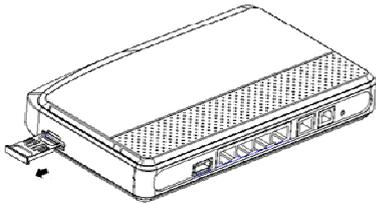
In the router mode, 3G ROUTER offers all the functions such as wireless accessing the internet, SMS, phone book and circuit-switched telephony service.

User can build the LAN either by the Ethernet interface or by WLAN.

Please follow these steps to start using:

Step 1: Insert the SIM Card

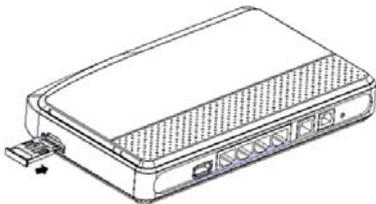
1. Take out the card socket.



2. Insert the SIM card into the socket with the golden contact facing upward.

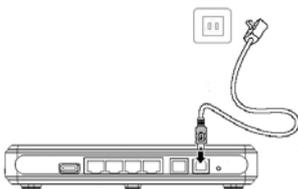


3. Insert the card socket into 3G ROUTER.



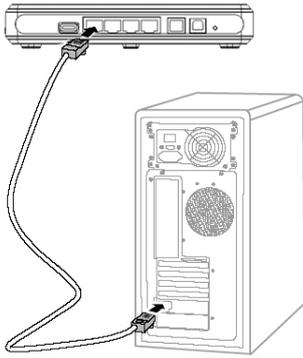
Note: Please make sure 3G ROUTER is powered off before inserting or removing the SIM card.

Step 2: Connect the Power Adapter



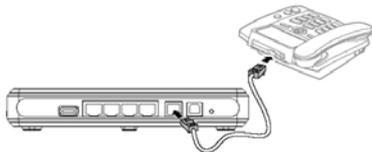
Please use the compatible power adapter keeping 3G ROUTER from damage.

Step 3: Connect to a PC



The indicator of the connection is on when the connection with Ethernet LAN interface is successful. The length of the Ethernet cable must be less than 100 meters (328 feet). If you want the better effect, please use the shielded cable.

Step 4: Connect to a Telephone



To avoid the coming call effect from interfering by the wireless signal, place the phone set one meter or more away from 3G ROUTER.

Step 5: Place 3G ROUTER

Place 3G ROUTER on a higher place or near the window for the better signal strength. To avoid electrical device from interfering by the wireless signal, place the electrical devices one meter or more away from 3G ROUTER

Step 6: Use 3G ROUTER

3G ROUTER works immediately when it is powered on. Then user can log in the configuration WEB UI page for operation. For the more detail information, see the following chapters.

Making a Call

3G ROUTER offers traditional circuit-switched telephony service. So user can make a call just by simply plugging any plain telephone set to 3G ROUTER's analog RJ11 connector after powered on.

Using the Configuration Page

Logging in to the Configuration Page

1. Start the IE browser, and then enter the address <http://192.168.100.1> in the address bar.
2. Enter the User name and the Password. And then click 'OK'.



3. The default user name is "admin" and the default password is "password".

Describing the Configuration Page

- **Operation Navigation Area:** Shows the main functions of the configuration console.
- **User Operation Area:** Shows detail configuration information, data information and help information.
The user operation area varies with different function operations.

3G-Router V1.0

Router

You have 0 new message

Home Help

- Quick Setup
- ▶ Application
- ▶ System
- ▶ LAN
- ▶ Wireless
- ▶ Firewall
- ▶ Port Forwarding
- ▶ Routing
- ▶ Network
- ▶ USB Device

Operation avigation Area

Status

Network

Signal Strengths: EDGE 

Status: CHINA MOBILE

Sim Card Status:  The sim card is ok.

Network Type: GPRS/EDGE preferred

Wan

IP Address: 10.182.210.235

Subnet Mask: 255.255.255.255

Gateway: 10.64.64.64

DNS1: 211.137.130.3

DNS2: 211.137.130.19

Status: Connected: 

Lan

MAC Address: 00:11:22:33:44:89

IP Address: 192.168.100.1

Subnet Mask: 255.255.255.0

DHCP Server: Enabled

Wlan

User Operation Area

Operation Functions

ITEM	DESCRIPTION
Application	Offers SMS and Contacts services.
System	Configures system setting, which includes system time, administrator settings, firmware upgrade, configuration tools, system log and restart.
LAN	Configures LAN, which includes LAN settings and DHCP client list.
Wireless	Configures wireless LAN, which includes basic settings, advanced settings, security settings, access control, and wireless status.
Firewall	Configures firewall, which includes client filtering, MAC control and URL filter.
Port Forwarding	Configures the functions correlative with port forwarding such as virtual server, triggered and DMZ.
Routing	Configures the static routing function.
Network	Configures the network parameters, which includes network settings, connection settings, volume statistic and security.
USB Device	Displays the USB devices connecting with 3G ROUTER. Configure the FTP server function.

3G ROUTER Status

ITEM	DESCRIPTION
Signal strength	 <p>From the weakest to the strongest.</p> <p>The network information will be displayed in front of the signal icon, Such as: EDGE, UMTS, GPRS, HSDPA, HSUPA</p>
Connection status	 Disconnection  Connection
SIM card status	 SIM card is ok  SIM card is locked or no SIM card inserted

3. Quickly Setup 3G ROUTER

Click “Quick Setup” to configure the connection setting.

Quick Setup Page

The screenshot shows the 'Quick Setup' configuration page for a 3G router. It is organized into three main sections:

- Wlan:**
 - SSID: 3G-Router
 - SSID Broadcast: Enabled Disabled
 - Security Mode: Disabled
- Management:**
 - Password: [Redacted] *3-12 characters*
 - Re-enter To Confirm: [Redacted]
- Connection Settings:**
 - APN: CMNET *Required Field*
 - Tel: *99***1#
 - Username: [Empty]
 - Password: [Empty]
 - Authentication: AUTO
 - Connection Mode: Keep Alive Dial Demand

At the bottom of the form, there are 'Save' and 'Cancel' buttons.

Having finished inputting, please click  to validate the inputting value, or click  to give them up.

Configuring the WLAN

In this part, you can modify the WLAN network name(SSID), and the correlative setting.

- SSID broadcast: If disabled, the wireless devices will not find the WLAN;
- Encryption: If disabled, any wireless device can connect with the WLAN without the password;

Note: Please enable Encryption in the wireless connection.

Configuring the Manager Setting

In this part, you can modify the administrator password.

Configuring Connection Settings

In most case, the APN and the Tel number will be automatically filled according to the SIM used. If they are not, please fill it manually. And the APN and the Tel number will be given by the operator.

The “Username” and the “Password” is not the required field. So in most case they are empty.

There are two “Connection Mode”: “Keep alive” and “Dial demand”. “Keep alive” means that 3G ROUTER will keep connecting to the internet no matter the internet accessing demand is sent. And “Dial demand” means that 3G ROUTER will automatically connect to the internet if the internet accessing demand is sent. If the “Dial demand”

is chosen, you should specify a time just like shown in the picture above, which means if no internet accessing demand is sensed in this specified time, 3G ROUTER will disconnect the connection.

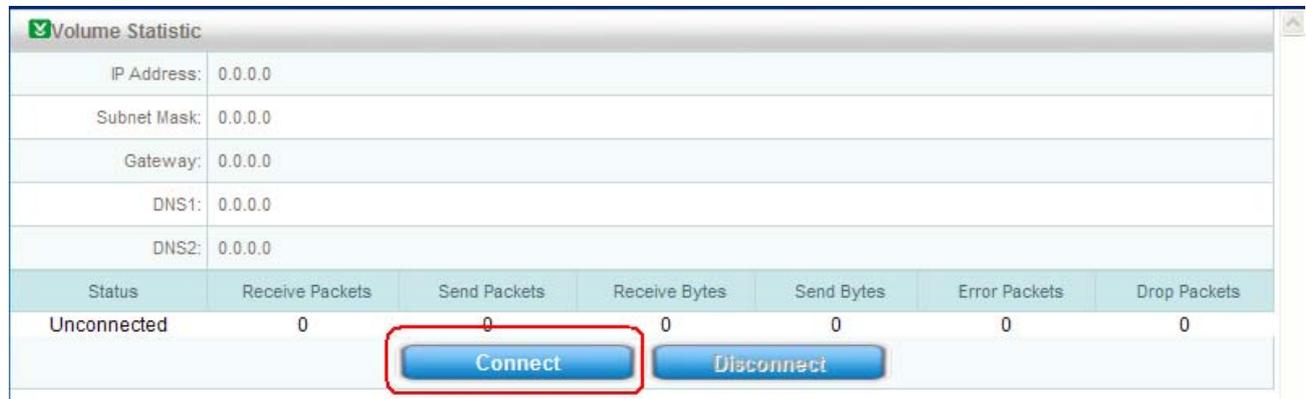
4. Connecting to the Internet

Connecting to the Internet

3G ROUTER will automatically connect to the internet no matter which kind of connection mode is chosen.

You can click <Connect> to access the internet manually in the “Volume statistic” page of “Network”.

To disconnect from the internet, click <Disconnect> to stop the connection.



3G ROUTER offers two connection modes: “Keep alive” and “Dial demand”. You can choose the connection mode in the “Quick setup” page or in the “Connection settings” page of “Network”. If you choose the “Keep alive” connection mode, 3G ROUTER will keep connecting to the internet no matter the internet accessing demand is sent. If you choose the “Dial demand” connection mode, 3G ROUTER will automatically connect to the internet if the internet accessing demand is sent.

Check Connection Status

You can access the connection status page by clicking the ‘Home’ on the top of the WEB UI.



The information about connection status is shown in User Operation Area:

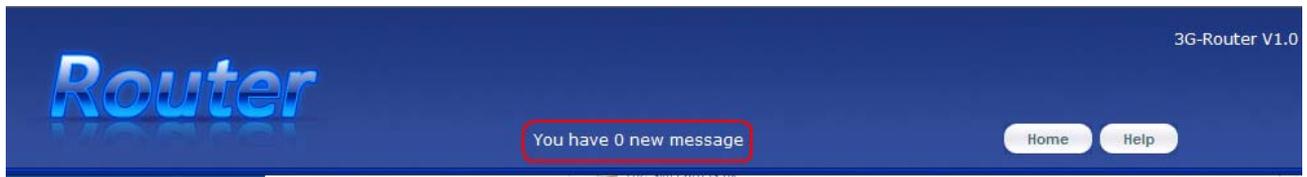
Status	
Network	
Signal Strengths:	EDGE 
Status:	CHINA MOBILE
Sim Card Status:	 The sim card is ok.
Network Type:	GPRS/EDGE preferred
Wan	
IP Address:	10.181.159.55
Subnet Mask:	255.255.255.255
Gateway:	10.64.64.64
DNS1:	211.137.130.3
DNS2:	211.137.130.19
Status:	Connected: 
Lan	
MAC Address:	00:11:22:33:44:89
IP Address:	192.168.100.1
Subnet Mask:	255.255.255.0
DHCP Server:	Enabled
Wlan	
Status:	Enabled
MAC Address:	00:11:22:33:44:89
SSID:	3G-Router
Channel:	6
Security Mode:	Disabled
Cipher Type:	Disabled
Information	
System Time:	Tue Dec 23 10:43:54 2008
Firmware Version:	V1.0
Refresh	

5.SMS and Contacts Application

3G ROUTER offers the SMS and the contacts services.

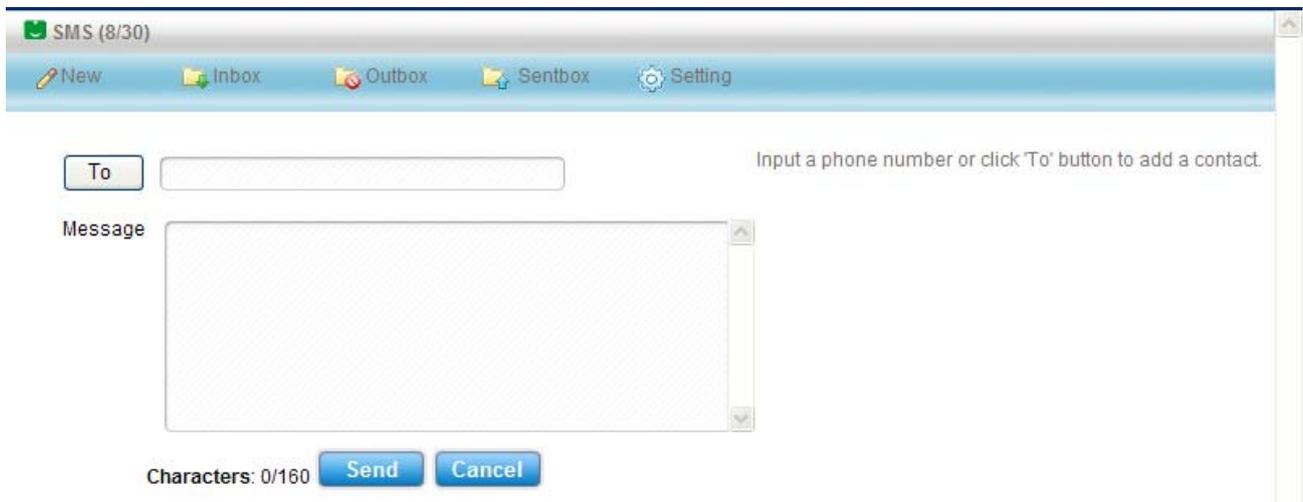
SMS Service

The new message indication will be displayed on the top of window.



Operate via “Application” → “Router storage” / “SIM card” → “SMS” in the operation navigation area to use the message service. The page of SMS is shown as below.

Create a new message

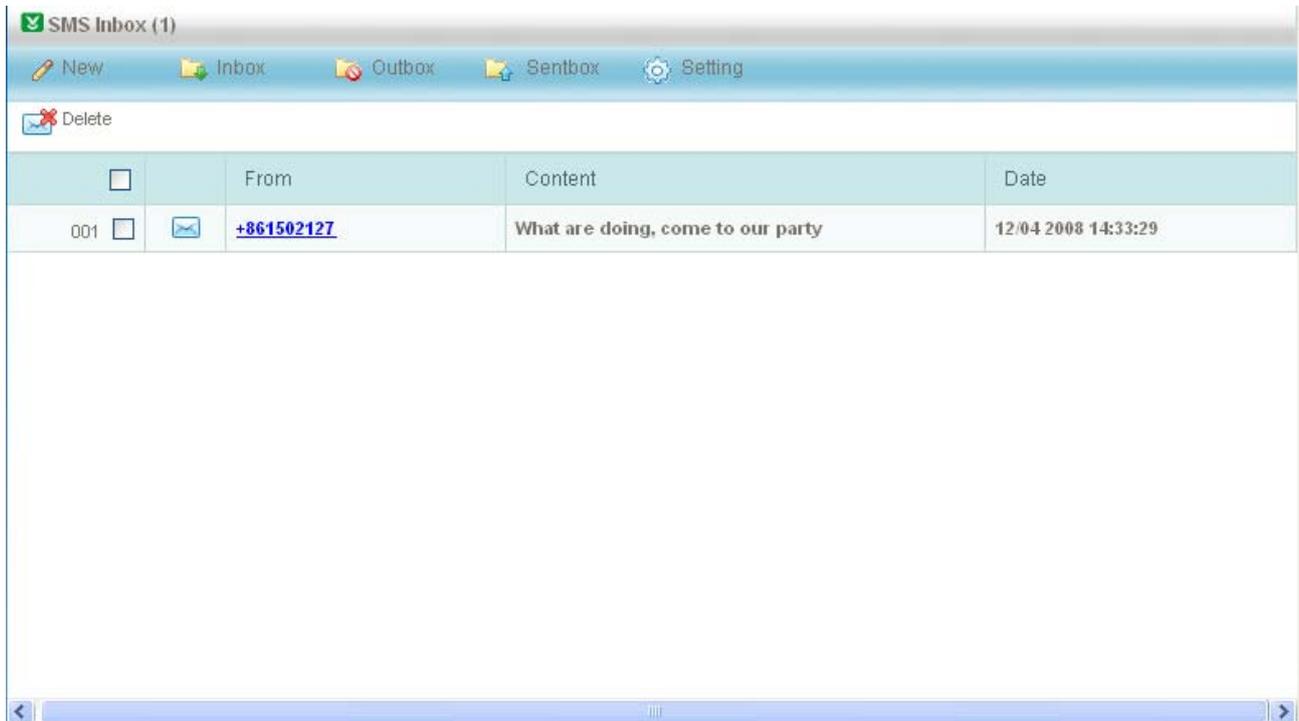


Input receiver’s number or click <To> to select the receiver from Contacts.

Input message content and select <Send>.

View received message

Click <Inbox> icon to view the list of received message. The messages are arranged by time sequence with different color marking the read or unread status.



Click sender name to view the message content



Reply received message

While viewing the message content, please click <Reply> icon to create message to the message sender.

Forward received message

While viewing the message content, please click <Forward> icon to edit the message including the received message content already.

Delete received message

While viewing the message content, please click <Delete> icon to delete the received message.
To delete messages in batches, mark the message in the list, and then click <Delete> icon.

Contacts Service

Select the “Application” → “Router storage” / “SIM card” → “Contacts” in the operation navigation area to use the Contacts service. The page of Contacts is shown as below.



The screenshot shows a web interface for managing contacts. At the top, there is a header with a green checkmark icon and the text "Contacts (2/1000)". Below the header, there are two buttons: "New" with a plus icon and "Delete" with a minus icon. A search bar is located below the buttons, labeled "Search Contacts:" with a text input field containing "Search....". The main content is a table with the following structure:

	<input type="checkbox"/>	Name	Number	Edit
0001	<input type="checkbox"/>	Jone	12344	
0002	<input type="checkbox"/>	Ann	45667	

Create the contacts

Please click <New> icon to access the editing contact interface. Input the contacts information like name and number and click <Save>.

Send message to the contacts

Mark the contacts as the message receiver; click <Send message> to edit message content and send it.

Delete the contacts

Mark the contacts, click <Delete> icon. Confirm the deletion when the question pops up.

6. Basic Setting

System Settings

Click “System” in the operation navigation to list the submenu of system settings.

System Time

There are two modes to get the system time: auto and manual.

- Auto: If auto mode is selected. 3G ROUTER will get the time from a NTP(Network Time Protocol) server. You can give a fixed NTP server IP address or 3G ROUTER will get the address from the default settings. And the time zone should also be pointed out.

The screenshot shows the 'System Time' configuration page. At the top, it displays 'Current Time: Tue Dec 23 11:01:17 2008'. Below this, the 'Mode' is set to 'Auto'. The 'NTP Server' field is empty, with a red asterisk and the text '*Example:pool.ntp.org*' to its right. The 'Time Zone' is set to '(GMT) Greenwich Mean Time'. At the bottom, there are 'Save' and 'Cancel' buttons.

- Manual: If manual mode is selected. 3G ROUTER will get the time from the WEB UI. You need to set the date and time manually.

The screenshot shows the 'System Time' configuration page in manual mode. The 'Current Time' is 'Tue Dec 23 11:01:17 2008'. The 'Mode' is set to 'Manual'. The 'Date' section has three input fields for 'Year', 'Month', and 'Day'. The 'Time' section has two input fields for 'Hour' and 'Minute'. At the bottom, there are 'Save' and 'Cancel' buttons.

Administrator Setting

Administrator setting is shown in the below picture.

The screenshot shows the 'Administrator settings' page. It is divided into three sections: 'Localization', 'UPNP Support', and 'Web Access'. Under 'Localization', there are two password fields: 'Password' and 'Re-enter To Confirm', both with red asterisks and the text '*3-12 characters*'. Under 'UPNP Support', the 'UPNP' option is set to 'Enabled' with a radio button. Under 'Web Access', the 'Web Access Via Wireless' option is set to 'Disabled' with a radio button. At the bottom, there are 'Save' and 'Cancel' buttons.

- “Localization” is used to modify the password which is used when logging in the WEB UI.
- “UPnP” means Universal Plug and Play, which is used to realize the intellectual interconnection. It is recommended to keep being “Enabled” status.
- “Web Access” is used to enable or disable the web accessing via wireless client. It is disabled by default.

Note: If Web Access is disabled, the router user interface may not be displayed properly.

Firmware Upgrade

You can upgrade the router's firmware in the Upgrade.

Firmware Upgrade	
Firmware Version:	V1.0
Release Date:	12/18 2008
Select The File:	<input type="text"/> <input type="button" value="Browser.."/>
<input type="button" value="Start to Upgrade"/>	

For upgrading the router, User should firstly choose the local upgrade files, and then click the <Start to Upgrade> button. After the upgrade course, 3G ROUTER will reboot automatically and user shouldn't do any operation until the upgrade course finish.

Note: An inadvertent upgrade course may destroy the firmware in router. So please use this function only under the professional guidance.

Configuration Tools

In this part, you can reset, backup and restore 3G ROUTER system settings.

To reset the configuration to the factory settings, click the <Reset> button to start.

To save the configuration to the local, click the <Backup> button to backup the configuration file.

To reset the configuration to the specific settings, click the <Restore> button to restore the settings from the local configuration file.

Configuration Tools	
Reset	
Reset To Factory Default:	<input type="button" value="Reset"/>
Backup Settings	
Backup Configuration:	<input type="button" value="Backup"/>
Restore Settings	
Restore Configuration:	<input type="text"/> <input type="button" value="Browser.."/> <input type="button" value="Restore"/>

System Log

In this part, you can view system log information.

To download the log information, click <Download> and select the location where log file is saved.

To refresh the log information, click <Refresh> to update the log information.

Click <Clear> to delete the log information.



Restart

To restart the system, click the <Restart> button.



LAN Settings

Click “LAN” in the operation navigation to list the submenu of LAN settings.

LAN Settings

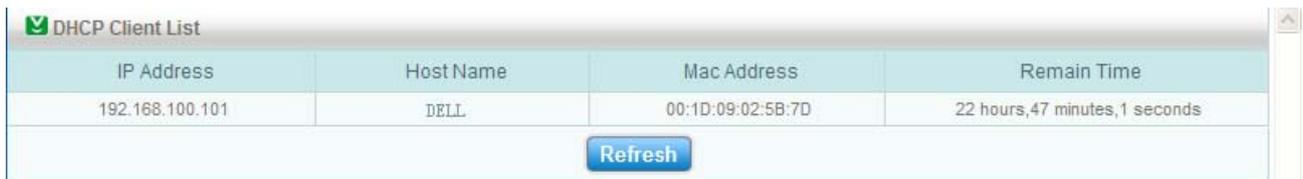
The LAN setting is shown as below.

- “IP address”: It is the address of WEB management UI. You can modify this IP address to be “192.168.***.###” or “172.168.***.###”(*** and ### stand for any number between 1 to 254).
- “Subnet mask”: It is recommended to be “255.255.255.0” without any change.
- “DHCP server”: “Enable” is the default value. If you change it, please make sure there is another DHCP server in the LAN.
- “IP pool”: It is used to define the IP address range that the DHCP server can use during the IP address

assignment. For example, in the network segment 192.168.100.0/24, the default IP address of 3G ROUTER is 192.168.100.1. The IP address can range from 192.168.100.2 to 192.168.100.254. The minimum range is a single IP address. Please make sure the IP address of WEB management UI is not in the range of IP pool.

- “Lease time”: The DHCP server automatically assigns an IP address to each device connected to the network. When the leased time expires, the DHCP server will check whether the device is connected to the network. If the device is disconnected from the network, the server will assign the IP address to another device.
- “Local domain name”: the name of the LAN.

DHCP Client List



IP Address	Host Name	Mac Address	Remain Time
192.168.100.101	DELL	00:1D:09:02:5B:7D	22 hours,47 minutes,1 seconds

[Refresh](#)

The DHCP client list lists the information about the device in the LAN. It shows IP address, host name, MAC address and remain time of each device.

7. Advanced Settings

In this chapter, the advanced settings which include the settings of wireless, firewall, port forwarding, routing and network will be introduced.

Wireless Settings

Click “Wireless” in the operation navigation to list the submenu of wireless settings.

Basic Settings

- “Wireless interface”: It specifies the wireless interface. “802.11b/g Compatible” means that you can use both the 802.11b device and the 802.11g device to connect to 3G ROUTER via WLAN; “802.11g Only” means that only the 802.11g device can be used to connect to 3G ROUTER via WLAN; “Disable” means that you can’t use the wireless device to connect to 3G ROUTER via WLAN.
- “SSID”: SSID(the service set identifier) is used to identify a WLAN. A wireless device and a wireless router can perform normal data communication only when they have the same SSIDs. To ensure the WLAN security, do not use the default SSID. You can enter any character string as the SSID.
- “Channel”: IEEE 802.11b/g divides ISM band into multiple channels, and the number of channels varies with different countries. You should set the same numbers for the channel.
- “SSID broadcast”: If the SSID broadcast is disabled, 3G ROUTER does not broadcast the SSID of WLAN. Before accessing the WLAN, the device must obtain the SSID of the WLAN. Thus, the security of WLAN is improved.

Wireless Advanced Settings

- “Beacon period”: The beacon period value indicates the frequency interval of the beacon. A beacon is a packet broadcast by the router to synchronize the wireless network.
- “RTS threshold control”: If a network packet is smaller than the preset RTS threshold size, the RTS mechanism will not be enabled. The router sends Request to Send(RTS) frames to a particular receiving station and negotiates the sending of a data frame.
- “Fragmentation control”: This value specifies the maximum size for a packet before data is fragmented into

multiple packets. If you experience a high packet error rate, you may slightly increase the Fragmentation Threshold. Setting the Fragmentation Threshold too low may result in poor network performance. Only minor reduction of the default value is recommended.

Note: These parameters in this part are close to the WLAN capability. So it is not recommended to modify these parameters unless you have enough professional knowledge.

Wireless Security Settings

You can configure the security of the wireless network in this part. 3G ROUTER offers five authentication modes: “Open System”, “Shared Key”, “Open & Shared”, “WPA-PSK” and “WPA2-PSK”. If you enable the “Encryption”, and select the “Open System”, “Shared Key” or “Open & Shared”, it is shown as the following picture:

The screenshot shows the 'Wireless Security Settings' window with the 'Security Mode' set to 'Open & Shared'. Under the 'WEP' section, the 'Encryption Strength' is set to '64 bits 10 hex digits'. There is a 'Pass Phrase' field with a 'Generate' button next to it. Below that are four 'WEP Key' fields (Key1, Key2, Key3, Key4) and a 'WEP Key' dropdown menu set to '1'. At the bottom are 'Save' and 'Cancel' buttons.

- “Encryption Strength”: The level of WEP encryption can be set: 64-bits 10 hex digits, 128-bits 26 hex digits or 152-bit 32 hex digits.
- “Passphrase”: To generate WEP keys using a passphrase, enter the passphrase in the field and click the “Generate” button.
- “WEP Key 1”~“WEP Key 4”: If you want to manually enter the WEP keys, then complete the fields provided. Each WEP key can be consist of the letters from “A” to “F” and the numbers from “0” to “9”. It should be 10 characters in length for 64-bit encryption, 26 characters in length for 128-bit encryption and 32 characters in length for 152-bit encryption.
- “WEP Key”: Select which WEP key in “WEP Key 1”~“WEP Key 4” to be used currently.

If you enable the “Encryption”, and select the “WPA-PSK” or “WPA2-PSK”:

The screenshot shows the 'Wireless Security Settings' window with the 'Security Mode' set to 'WPA-PSK'. Under the 'WPA' section, the 'Cipher Type' has radio buttons for 'TKIP' (selected), 'AES', and 'Auto'. There is a 'Pass Phrase' field. At the bottom are 'Save' and 'Cancel' buttons.

- “Cipher Type”: select the type of cipher: “TKIP”, “AES” and “Auto”.

Wireless Access Control

Wireless access control enables or disables the wireless access control rule. If you select “Enabled”, it is shown as the following picture:

- “Control rule”: There are two control rules “MAC address deny” and “MAC address allow”. “MAC address deny” means that the devices which have the appointed MAC address are denied to access 3G ROUTER via WLAN; “MAC address allow” means that only the devices which have the appointed MAC address are allowed to access 3G ROUTER via WLAN. Click the “Add” button to add another MAC address.

Wireless Status

All the active wireless clients are listed in this part.

The information of active wireless client listed here includes IP address, MAC address, channel and rate.

Firewall Settings

Click “Firewall” in the operation navigation to list the submenu of firewall settings.

Client Filtering

The client filtering is based on IP address. If you enable the client filtering function, you should input an IP address range. And the device with the IP address in this range will be blocked from browsing the Internet. You can click “Add” button to add a new IP address range.

MAC Control

MAC control controls the accessing to the Internet. If you enable this function, you can add at most 10 appointed MAC addresses. The devices with the appointed MAC address will be forbidden accessing to the Internet.

URL Filter

URL filter is used to deny the computers in LAN from accessing specific WEB sites by its domain name. A URL is a specially formatted text string that defines a location on the Internet. If any part of the URL contains the blocked word, the web page will not be accessible. You can at most add 10 blocked words by clicking “Add” button.

Port Forwarding Settings

Click “Port Forwarding” in the operation navigation to list the submenu of port forwarding settings.

Virtual Server

	Status	Server IP	Server Port	Ext Port	Protocol
1	Disabled				TCP
2	Disabled				TCP
3	Disabled				TCP
4	Disabled				TCP
5	Disabled				TCP
6	Disabled				TCP
7	Disabled				TCP
8	Disabled				TCP
9	Disabled				TCP
10	Disabled				TCP
eg.	Enabled	192.168.100.101	21	1000-2000	TCP

If you configure 3G ROUTER as a virtual server, remote users accessing services such as Web or FTP at your local site via public IP addresses can be automatically redirected to local servers configured with private IP address.

In other words, 3G ROUTER redirects the external service request to the appropriate server depending on the requested service (TCP/UDP port number).

Triggered

The triggered allows 3G ROUTER to watch outgoing data for specific port numbers. The IP address of the device in LAN that sends the matching data is recorded by 3G ROUTER. So that when the requested data returns through the Router, the data is pulled back to the proper device according to the IP address and port mapping rules.

Triggered				
	Status	Protocol	Trigger Port	Forward Port
1	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
2	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
3	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
4	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
5	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
6	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
7	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
8	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
9	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
10	Disabled	TCP	<input type="text"/> - <input type="text"/>	<input type="text"/> - <input type="text"/>
eg.	Enabled	TCP	21-60	1000-2000

- “Status”: Enable port range triggering for the relevant application or disable it.
- “Protocol”: The protocol of data.
- “Trigger Port”: For each application, list the triggered port number range. Check with the Internet application documentation for the port number(s) needed. In the first field, enter the starting port number of the triggered Range. In the second field, enter the ending port number of the Triggered port.
- “Forward Port”: For each application, list the forwarded port number port. Check with the Internet application documentation for the port number(s) needed. In the first field, enter the starting port number of the Forwarded Range. In the second field, enter the ending port number of the Forwarded Range.

DMZ

3G ROUTER offers DMZ function.

DMZ	
DMZ Function	
<input type="radio"/> Disabled	
<input checked="" type="radio"/> Enabled	
DMZ Host	
<input type="text" value="0.0.0.0"/>	*Example:192.168.100.101*

If a PC can not run network applications through the gateway, enter the IP address of the PC in the entry field after the DMZ function is enabled.

Routing

3G ROUTER supports static routing function. Click “Routing” in the operation navigation to list the submenu of static routing settings.

Static Routing

Static Routing

Route Entries:	Entry 1 ▼	
Destination:	0.0.0.0	
Subnet Mask:	255.255.255.0	
Gateway:	0.0.0.0	
Interface:	LAN ▼	<input type="button" value="Save"/> <input type="button" value="Delete"/>

Current Routing Table:

Destination	Gateway	Subnet Mask	Interface
10.64.64.64	0.0.0.0	255.255.255.255	WAN
192.168.100.0	0.0.0.0	255.255.255.0	LAN
239.0.0.0	0.0.0.0	255.0.0.0	LAN
0.0.0.0	10.64.64.64	0.0.0.0	WAN

Network Settings

Click “Network” in the operation navigation to list the submenu of network settings.

Network Settings

In the network settings, you can modify the settings of network mode, network band and network selection method.

Network Settings			
Network Mode			
<input type="radio"/>	Only UMTS/HSDPA/HSUPA		
<input type="radio"/>	UMTS/HSDPA/HSUPA Preferred		
<input type="radio"/>	Only GPRS/EDGE		
<input checked="" type="radio"/>	GPRS/EDGE Preferred		
Network Band			
<input checked="" type="radio"/>	Auto	<input type="radio"/>	GSM 1900
<input type="radio"/>	GSM 900/1800/UMTS 2100	<input type="radio"/>	UMTS 1900
<input type="radio"/>	GSM 850		
<input type="radio"/>	UMTS 850		
Network Selection			
<input checked="" type="radio"/>	Automatic		
<input type="radio"/>	Manual		
<input type="button" value="Save"/> <input type="button" value="Cancel"/>			

- “Network mode”: select the rule for registering the network. “UMTS/HSDPA/HSUPA” means 3G network, and “GPRS/EDGE” means 2G network. The default selection is “UMTS/HSDPA/HSUPA preferred”.
- “Network band”: The default selection is “Auto”. If you select other network band, 3G ROUTER will search and register to the new band.
- “Network selection”: The default selection is “Automatic”. If you click on “Manual”, it will activate a network list, which contains all the networks searched. Having selected an available network from the list, 3G ROUTER will register to the selected network. It is shown in the picture below.

Network Selection													
<input type="radio"/>	Automatic												
<input checked="" type="radio"/>	Manual												
	<table border="1"> <thead> <tr> <th>Operator</th> <th>Server</th> <th>Status</th> <th>Select</th> </tr> </thead> <tbody> <tr> <td>China Mobile</td> <td>GSM</td> <td>Current</td> <td><input checked="" type="radio"/></td> </tr> <tr> <td>China Unicom</td> <td>GSM</td> <td>Forbidden</td> <td><input type="radio"/></td> </tr> </tbody> </table>	Operator	Server	Status	Select	China Mobile	GSM	Current	<input checked="" type="radio"/>	China Unicom	GSM	Forbidden	<input type="radio"/>
Operator	Server	Status	Select										
China Mobile	GSM	Current	<input checked="" type="radio"/>										
China Unicom	GSM	Forbidden	<input type="radio"/>										

Volume Statistic

In this part, you can get the statistic information about the data flow.

Volume Statistic						
IP Address:	10.181.202.66					
Subnet Mask:	255.255.255.255					
Gateway:	10.64.64.64					
DNS1:	211.137.130.3					
DNS2:	211.137.130.19					
Status	Receive Packets	Send Packets	Receive Bytes	Send Bytes	Error Packets	Drop Packets
Connected	118	160	23848	15432	0	0
<input type="button" value="Connect"/> <input type="button" value="Disconnect"/>						

Security

User's device is equipped with one or more codes to protect it against unauthorized use. The PIN(Personal Identification Number) code and PUK(Personal Unblocking Key) code is entered incorrectly codes actually protect the SIM card, a small card inside 3G ROUTER that establishes the network connection.

Security	
PIN Info	
Status:	Disabled
Lock Status:	READY
PIN Remain Times:	3
PUK Remain Times:	10
Operations	
<input type="radio"/> Lock	
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

- PIN Info: It shows the PIN status, lock status, PIN remain times and PUK remain times.
- Operations: The default PIN code is provided by the operator or service provider. User can reassign it. So user can lock the SIM card with pin code to protect 3G ROUTER against unauthorized use. And unlock the SIM card with PIN code which user has set. If the PIN code is entered incorrectly multiple times, 3G ROUTER may request a PUK code. The PUK code is an 8-digit code provided by operator or service provider. If user doesn't want to use the PIN code, please select "Lock" and click "Save" button.

Note:

You have 3-time chance to input the PIN lock password. If the PIN is wrongly input for continuously 3 times, the PUK is required to input to unlock the PIN lock; and if the PUK is wrongly input for continuously 10 times, the card will be damaged. Please consult with the network service provider for the details.

8.USB Device Applications

Click “USB Device” in the operation navigation to list the submenu of USB device settings.

Device Info

When a USB printer or a USB mass storage device is connecting with 3G ROUTER via USB device port, the information about the printer or the device will be shown in this part.

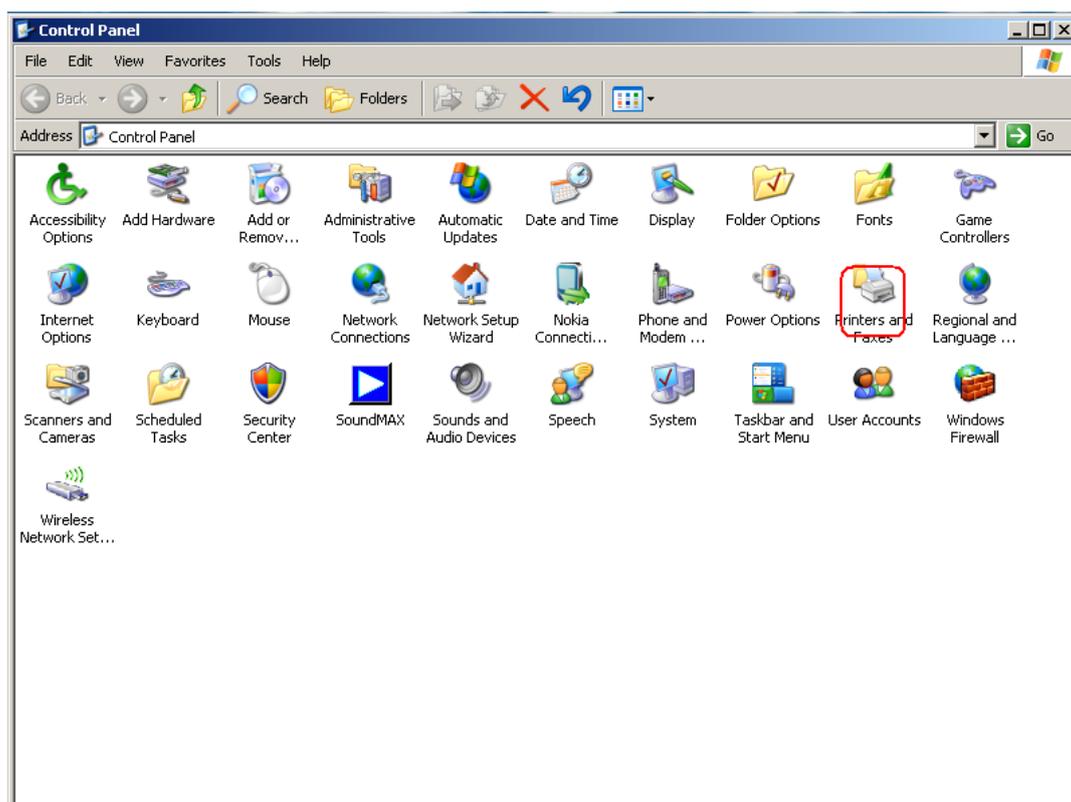
The following picture shows an example: a HP printer is connecting with 3G ROUTER via USB device port. The information about the printer is listed.



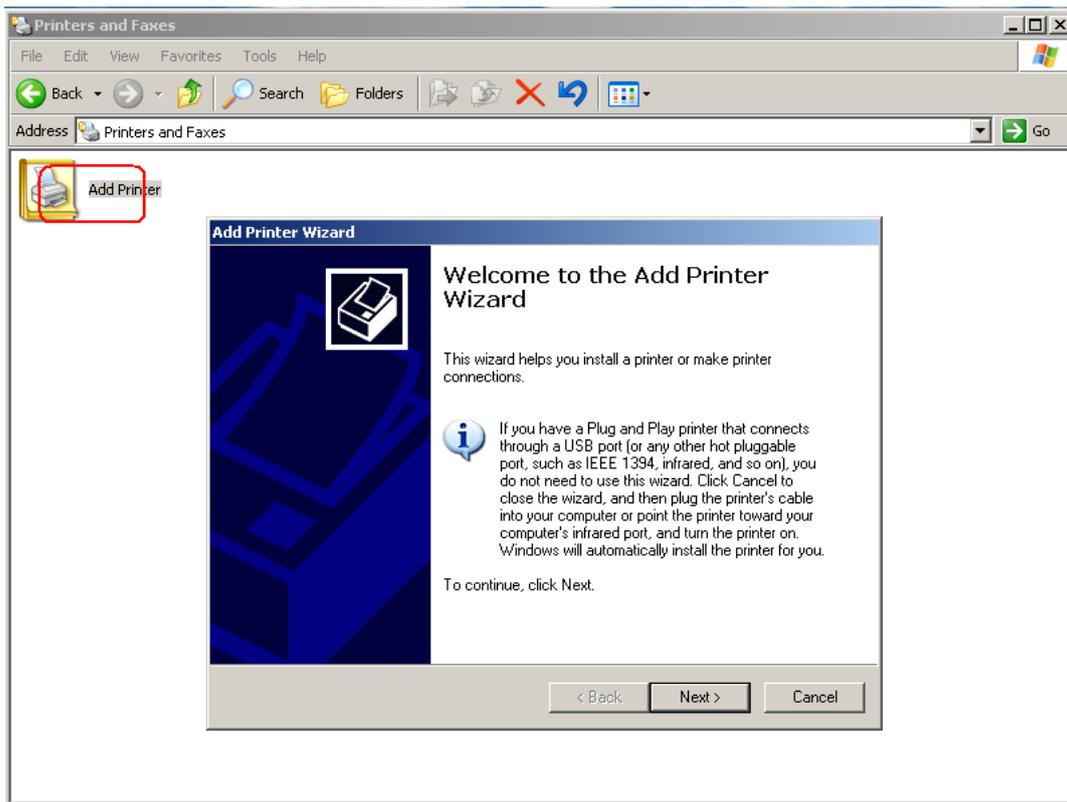
- “Vendor”: the vendor of printer
- “Product Name”: the type of printer.

If you want to connect a USB printer with 3G ROUTER, connect the printer to the USB device port, and then add the printer to your PC as the following steps (the example is shown on windows XP OS):

1. Enter the “Control Panel”, and select “Printers and Faxes”



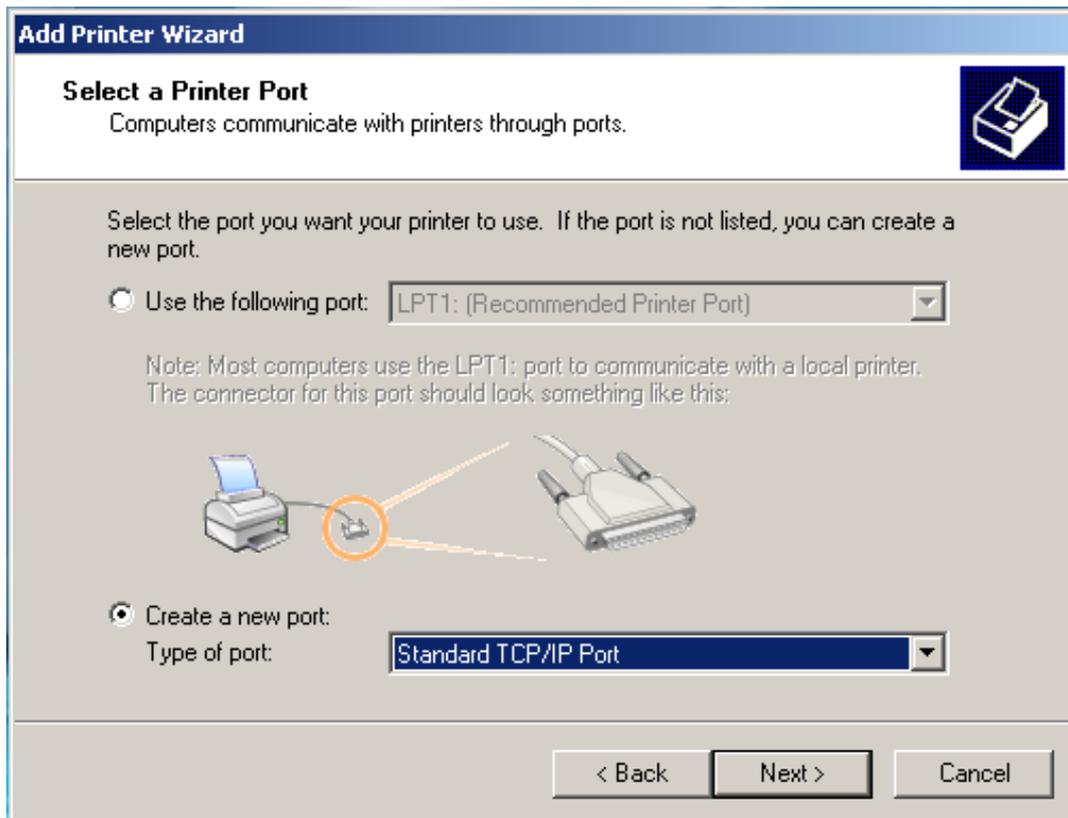
2. Select the “Add a printer” and click “Next”



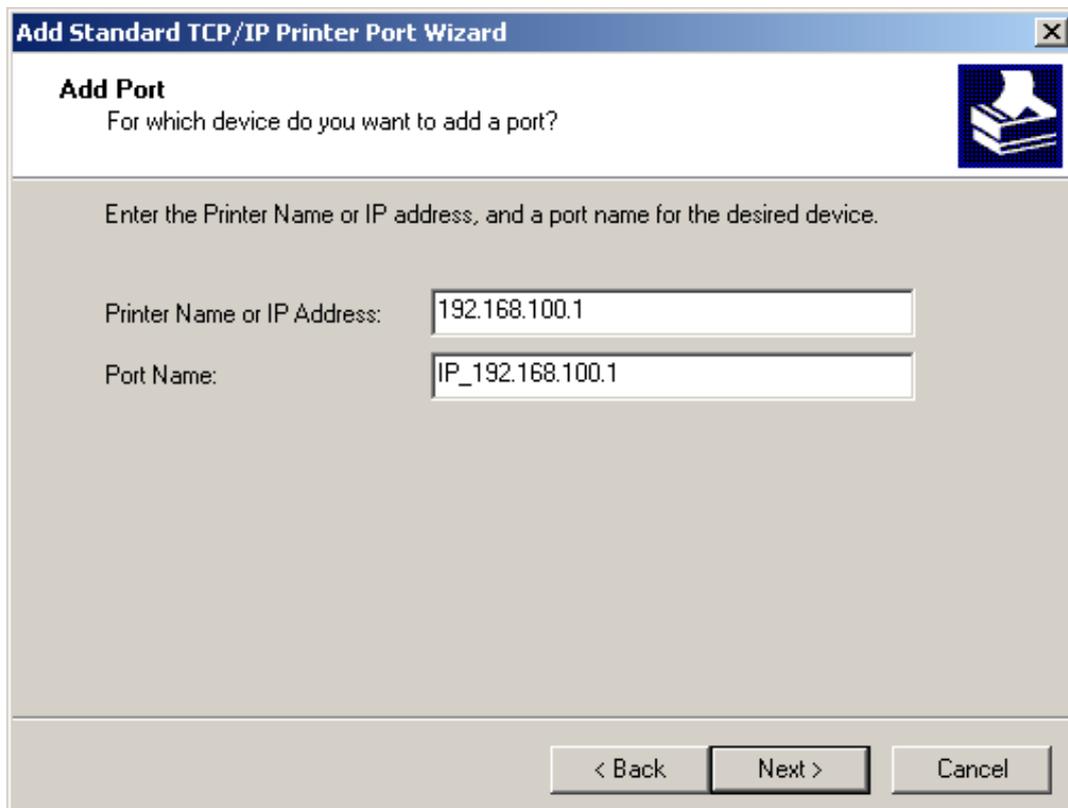
3. Select “Add a local printer” and click “Next”



4. Select “Create a new port”→“Standard TCP/IP Port” and click “Next”



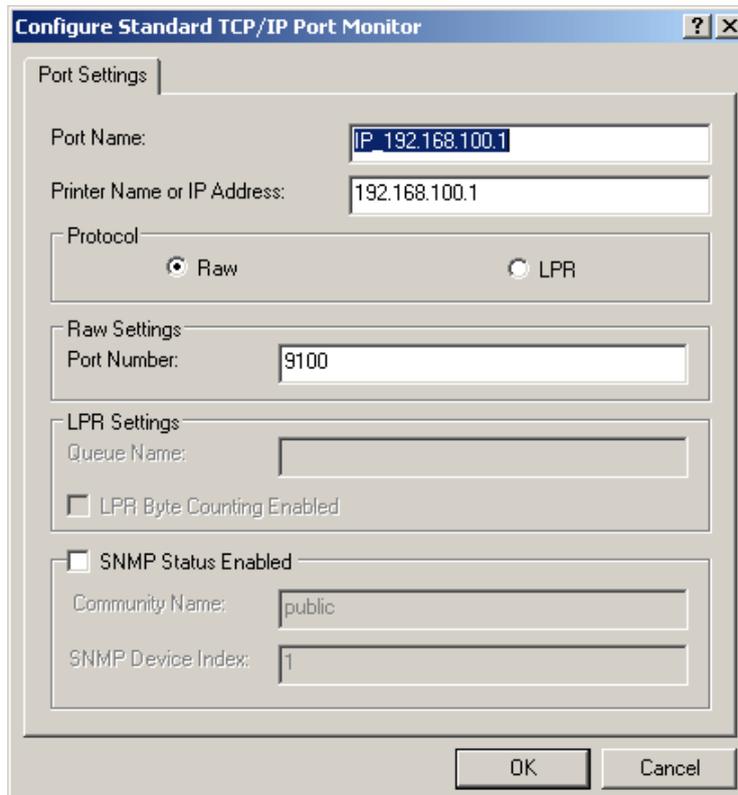
5. Input “192.168.100.1” into “Printer Name or IP address”. Then click the “Next”.



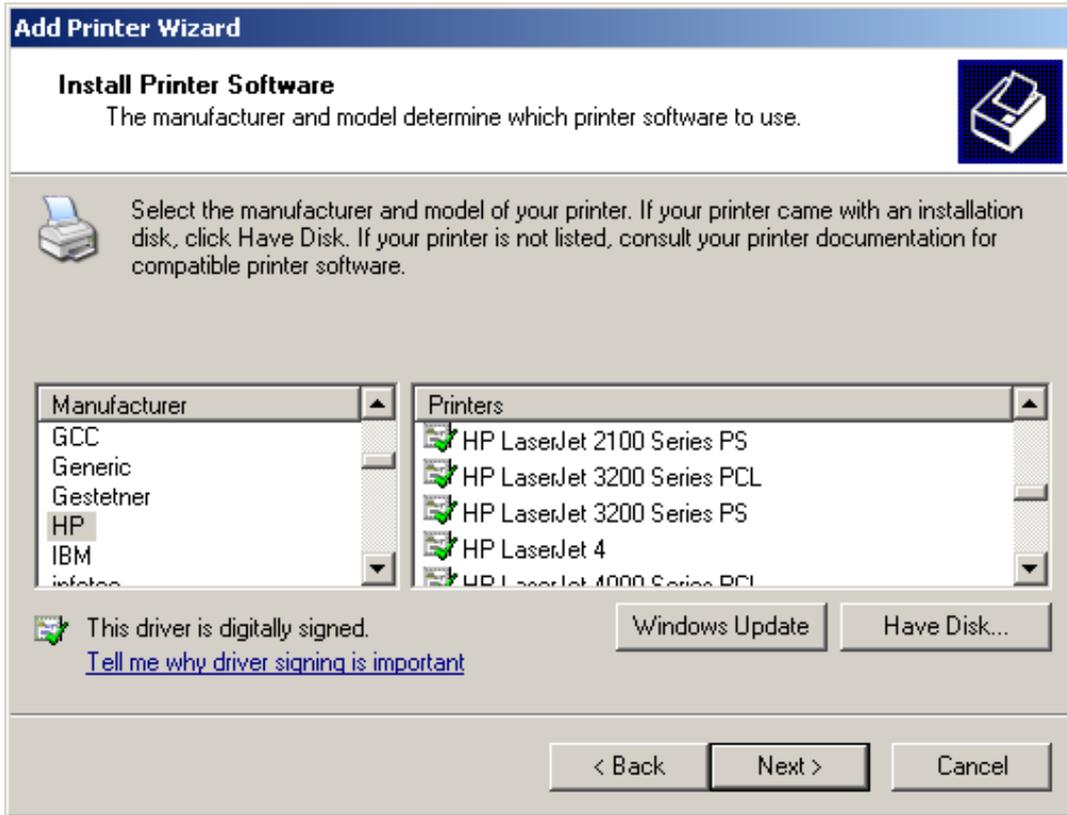
6. Select “Custom”, click “Settings”



7. Set the settings like what is shown in following picture, and then click “OK”



- Select the right vendor and the right type of printer you used. In this example, we use the HP LaserJet 3055 form HP. Then click “Next”.



- Follow the windows guide until finish.

FTP Server

When you connect a USB mass storage device to 3G ROUTER, the correlative information will be listed in “Device Info” part.



The “USB storage Partition Table” shows the information about the space of mass storage device.

Note: Having connected a mass storage device to 3G ROUTER, if the device can not be enumerated. It is forbidden to plug the auxiliary USB data cable to another PC for the additional power supply. It may damage 3G ROUTER.

The settings of FTP server are listed in “FTP Server” part.

FTP Server Settings	
FTP Server:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Port:	<input type="text" value="21"/>
Username:	<input type="text" value="guest"/> *3-12 characters*
Password Type:	<input type="radio"/> Any <input checked="" type="radio"/> Special
Password:	<input type="password" value="•••••"/> *3-12 characters*
Re-enter To Confirm:	<input type="password" value="•••••"/>
User Permission:	<input type="checkbox"/> Write <input type="checkbox"/> Delete
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

If you enable the FTP server function, when a USB storage device is connecting to 3G ROUTER you can access the FTP server by setting the port, username and password type.

- “Username”: The username you should input when logging in the FTP server.
- “Password Type”: If the password type is set to be 'any', that means any user who can accurately inputs the user name, no matter whether the password is input, can use the FTP server; If the password type is set to be 'special', that means only the user who accurately inputs the user name and the password can use the FTP server.
- “Password”: The password you should input when logging in the FTP server if the “Password Type” is set to be “Special”.
- “User Permission”: The default operation on FTP server is "Read-Only", but it can be modified in "User Permission". And the modification will be carried out by pressing the 'Save' button.

Having finished the FTP server settings, you can access the server by IE or Firefox browser. The address of the server is <ftp://192.168.100.1>.

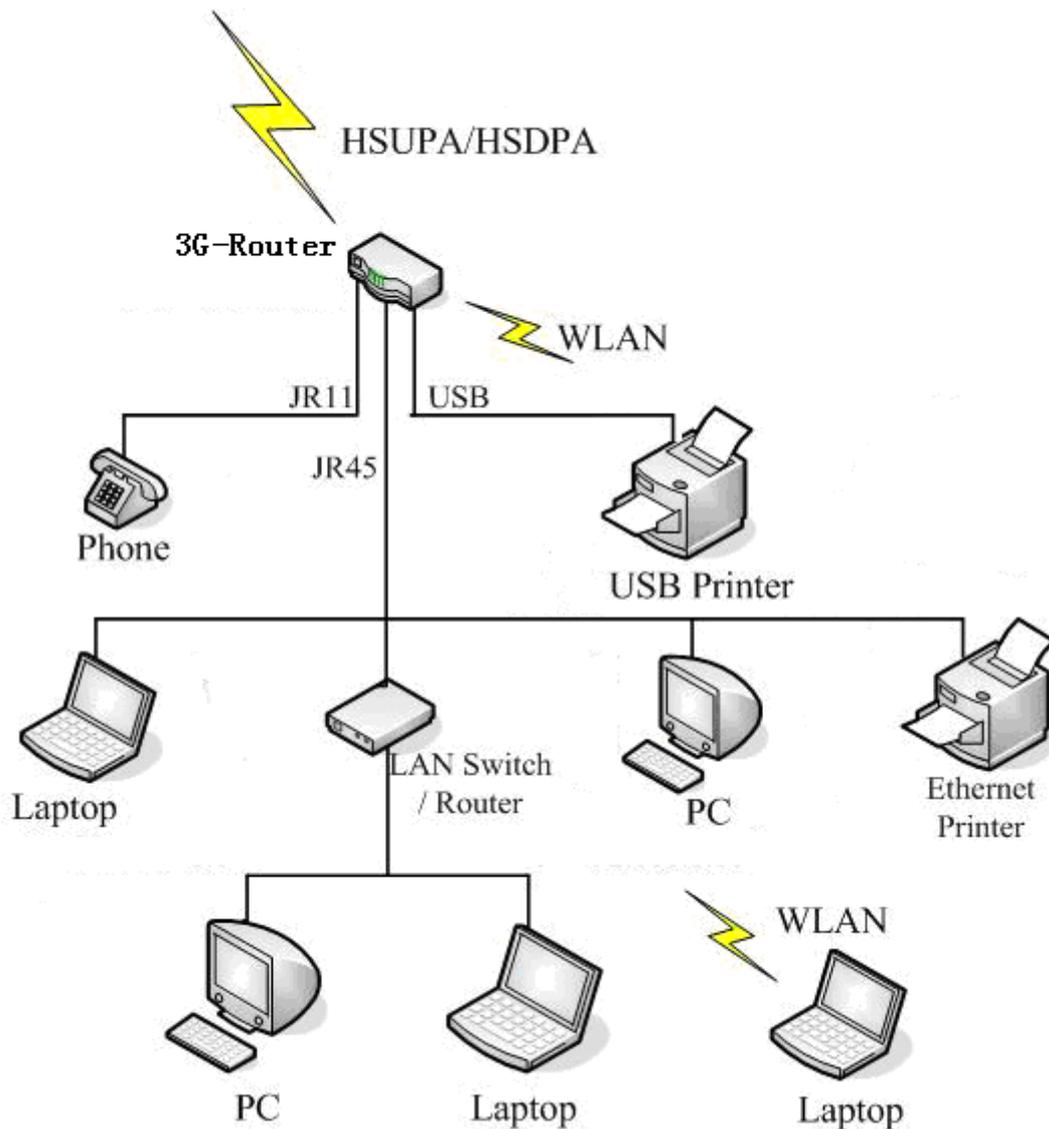
Note: The FTP function only supports files named in English by IE or Firefox browser. Enable UTF-8 coding for special FTP to support other languages.

9. Typical Networking Example

You can build a small LAN through the WLAN interface or four Ethernet interfaces of 3G ROUTER. 3G ROUTER also supports external hubs, Ethernet switches or routers to extend the Ethernet interfaces.

3G ROUTER supports a RJ11 interface to connect to a plain telephone set, and supports one USB host interface to connect to a USB mass storage device or a USB printer.

The typical networking example is shown in the follow picture:



10. Warning and Precautions

Electronic Device

Turn off your device near high-precision electronic devices. The wireless device may affect the performance of these devices. Such devices include hearing aids, pacemakers, fire alarm system, automatic gates, and other automatic devices can be affected. If you are using an electronic medical device, consult the device manufacturer to confirm whether the radio wave affects the operation of this device.

Hospital

Pay attention to the following points in hospitals or health care facilities:

- Do not take your wireless device into the operating room, intensive care unit, or coronary care unit.
- Do not use your wireless device at places for medical treatment where wireless device use is prohibited.
- When using your wireless device near someone who is suffering from a heart disease, turn down the ring tone volume or vibration properly so that it does not affect the person.

Traffic Safety

- Please observe local laws and regulations on wireless device use. Do not use your wireless device while driving to avoid traffic accident.
- Secure the wireless device on its holder. Do not place the wireless device on the seat or other places where it can get loose in a sudden stop or collision.
- Use the wireless device after the vehicle stops at a safe place.
- Do not place the wireless device over the air bag or in the air bag outspread area. Otherwise, the wireless device may hurt you owing to the strong force when the air bag inflates.
- Observe the rules and regulations of airline companies. When boarding or approaching an plane, turn off the wireless device and take out the battery. In areas where wireless device use is prohibited, turn off the wireless device. Otherwise, the radio signal of the wireless device may disturb the plane control signals. Turn off your wireless before boarding an aircraft.

Storage Environment

- Do not place magnetic storage media such as magnetic cards and floppy disks near the wireless device. Radiation from the wireless device may erase the information stored on them.
- Do not put your wireless device, battery, or other accessories in containers with strong magnetic field, such as an induction cooker and a microwave oven. Otherwise, circuit failure, fire, or explosion may occur.
- Do not leave your wireless device, battery, or charger in a very hot or cold place. Otherwise, malfunction of the products, fire, or explosion may occur.
- Do not place sharp metal objects such as pins near the earpiece. The earpiece may attract these objects and hurt you when you are using the wireless device.
- Do not subject your wireless device, battery, and charger to serious collision or shock. Otherwise, battery leakage, wireless device malfunction, overheat, fire, or explosion may occur.
- Do not put your wireless device in the back pocket of your trousers or skirt to avoid wireless device damage

while seated.

Children Safety

- Put your wireless device, battery, and charger in places beyond the reach of children. Do not allow children to use the wireless device, battery, or charger without guidance.
- Do not allow children to put the battery in mouth, for electrolyte in the battery is poisonous.
- Do not allow children to touch the small fittings. Otherwise, suffocation or gullet jam can be caused if children swallow the small fittings.

Operating Environment

- The wireless device, battery, and charger are not water-resistant. Keep them dry. Protect the wireless device, battery and charge from water or vapor. Do not touch the wireless device with a wet hand. Otherwise, short-circuit and malfunction of the product or electric shock may occur.
- Do not use the wireless device in dusty, damp and dirty places or places with magnetic field. Otherwise, malfunction of the circuit may occur.
- Do not turn on or off the wireless device when it is near your ears to avoid negative impact on your health.
- When carrying or using the wireless device, keep the antenna at least one inch (2.5 centimeters) away from your body, to avoid negative impact on your health caused by radio frequency leakage.
- If you feel uncomfortable (such as falling sick or qualm) after playing games on your wireless device for a long time, please go to see a doctor immediately.
- On a thunder stormy day, do not use your wireless device outdoors or when it is being charged.
- Do not touch the antenna when a call is going on. Touching the antenna may affect call quality and cause the wireless device to operate with more power. As a result, the talk time and standby time are shortened.
- The wireless device may interfere with nearby TV sets, radio and PCs.
- In accordance with international standards for radio frequency and radiation, use wireless device accessories approved by the manufacturer only.

Cleaning and Maintenance

- Before you clean or maintain the wireless device, turn off it and disconnect it from the charger. Otherwise, electric shock or short-circuit of the battery or charger may occur.
- Do not use any chemical detergent, powder, or other chemical agent (such as alcohol and benzene) to clean the phone and the charge. Otherwise, part damage or a fire can be caused. You can clean the phone and the charger with a piece of soft antistatic cloth that is a little wet.
- Do not scratch the shell of the wireless device. Otherwise, the shed coating may cause skin allergy. Once it happens, stop using the phone at once and go to see a doctor.
- If the wireless device or any of its fittings does not work, turn to the local authorize service center for help.

FCC Statement

● This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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

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

▶ **RF Exposure Information**

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

● This device complies with FCC radiation exposure limits 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 20cm (8 inches) during normal operation.