I/O crest™

Wireless Pocket Router/AP

with Client Mode, 802.11b/g

User's Manual

Content

1.Profile of Wireless Pocket Router/AP

1.1 Abstract

Our slim, exquisite and portable,streamlined and white appearance, wireless pocket router/AP, PPPoE AP and USB wireless network card, and thus is ready to provide you a relaxed environment for wireless Internet access at home, on a business trip, or in the hotel, bar or dormitory.

Compliant with the wireless standard IEEE802.11b/g and supported by the MIMO technology, it reaches a wireless transmission rate of 54Mbps, supports the Flow Control Protocol IEEE802.3x and flow control for high-speed data transmission, and performs the function to change the wireless network SSID, channel, or password by programming.

There is a small slide switch on the frame of this portable wireless partner, designed as a shift key between wireless AP and wireless network card to help the partner realize both functions.

1.2 Agreement on Network Parameters

- Compliant with the standards IEEE 802.11g and IEEE 802.11b
- Support USB1.1 and USB2.0
- Support USB general commands, class commands, and custom commands
- Support USB Suspend Mode for lower power consumption
- Compatible with the protocol IEEE802.3u
- Support the Flow Control Protocol IEEE802.3x
- Compatible with the protocols of IEEE802.11 series
- Perform the WEP encryption function under IEEE802.11
- A wireless transmission rate of 54Mbps, supported by MIMO technology
- Easy-to-use configuration and monitoring program
- Support wireless roaming technology to ensure efficient wireless connection
- Compatible with OS: Windows 2000/XP/XP64/7/Vista/Vista64

2.Product Specifications

2.1 Technical Specifications

Standards and Protocols Compliant	IEEE 802.11g IEEE 802.11b PPPOE CSMA/CA
Bus Type	USB1.1, USB 2.0
Antenna Type	Built-in Antenna
Working Frequency Range	2.4~2.4835GHz
Transmission Rate	11g: 54/48/36/24/18/12/9/6M (self-adapting) 11b: 11/5.5/2/1M (self-dapting)
Working Channel	Channel 3, 6, 9, 11
Spread Spectrum Technology	DSSS (Direct Sequence Spread Spectrum)
Data Modulation	OFDM/CCK/16-QAM/64-QAM
Sensitivity @PER	54M: -68dBm@10% PER 11M: -85dBm@8% PER 6M: -88dBm@10% PER 1M: -90dBm@8% PER
RF Power	20dBm (Max.)
LED Indicator	Power-red LAN-green WLAN-yellow
Reset Key	Clear the preset secrets (more than 3seconds)
AP/WIFI Shift Key	Shift between wireless AP and wireless network card
Power Adapter	5V500mA
Dimension	86*56*20 mm
Weight	About 40g
Accessories	network cross wire* · Adapter, USB Cable, Instruction, CD
Environmental Conditions	Working Temperature: 0°C~40°C Storage Temperature: -40°C~70°C Working Humidity: 10%~95%(no condensation)
OS Compatible	Windows 2000/XP/XP64/7/Vista/Vista64

* When the Network General cable does not work, please try the network cross wire cable.

3.Operating Instructions

3.1 In Wireless AP Mode

(1)The key [AP/WiFi] is located at AP as below: (Figure 1)

AP/WIFI —————————— USB

Figure 1

(2)Connect the mini interface of the USB cable to pocket router and the other interface to the power adapter, and then connect the poweradapter to the power supply, with the power indicator remaining on and WIFI indicator twinkling. (Figure 2)
Note: Only use the power supply of 5V/500mA, or it could cause damage to the portable wireless partner or failure to get online.
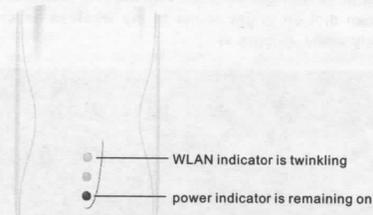

— WLAN indicator is twinkling

— power indicator is remaining on

Figure 2

(3)There are two connection modes for the portable wireless AP and network. Mode I: connection from Router, II: connection from Modem.

Ⅰ: Connect the attached network cable with the Router, with the LAN indicator twinkling. You can get online to the wireless network, but it is free of safety limits. (Figure 3)
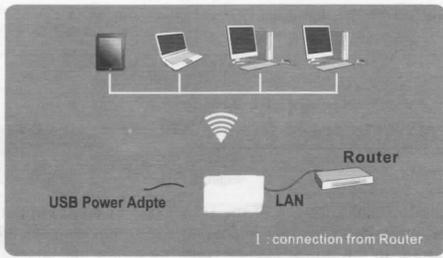

Figure 3

Ⅱ: Connect the attached network cable with the LAN interface of the ADSL MODEM to wireless network, with the LAN indicator twinkling, then, you can dial up to get online to the wireless network, but it is free of safety limits. (Figure 4)
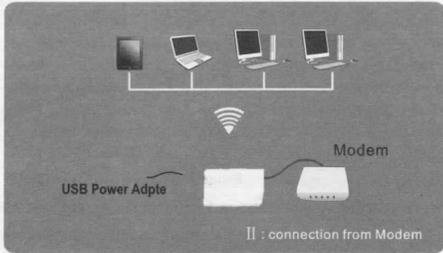

Figure 4

Although the wireless network is already connected, that only indicates the connection between the computer and pocket router. You must dial up to get online to the wireless network.(Figure 5)
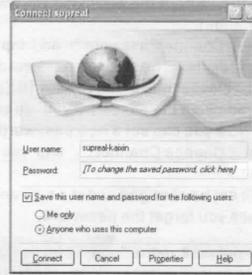

Figure 5

In the above window "Connection Broadband Connection", please enter the user name and password provided by China Telecom and then click *Connect* to get online.

（4）Safety Control

A. Use the peer-to-peer network cable to connect pocket router with the computer, insert the attached compact disk into the CD-ROM drive, copy the folder "SWU" to the computer, and then open this folder with double click toward to the Application SWU.(Figure 6)
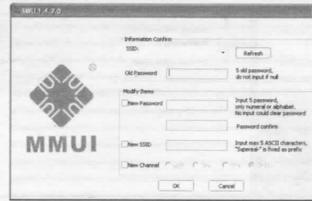

Figure 6

B. Refresh the SWU page, and you will see SupeReal-******. That means pocket router is working properly.；

C. Tick the box before "Change Name" and input a new name in the bigger box to change the SSID of the wireless network ("SupeReal-" is not subject to any change)；

D. Tick the box before "Change Password" and input a new password comprising 5 digits. The default password is null. If you forget your password, please long press the key [RESET] for over 3s to restart the computer, removing the password you've set before and getting it back to null. Now you can set a new password again；

E. Tick the box before "Change Channel", and you can select a relatively idle channel.

The settings above will not be changed under a new environment. Just leave them there unless you forget the password.

(5) Click the wireless network icon " " on the lower right corner of the computer screen to enter the page "Wireless Network Connection", refresh the networks list to find "SupeReal-******" with the safe wireless network enabled, click *Connect* to pop up a window, input the new password in "Network Key", confirm the new password, and then click *Connect* to get online to your personal safe wireless network. 。(Figure 7.8.9)
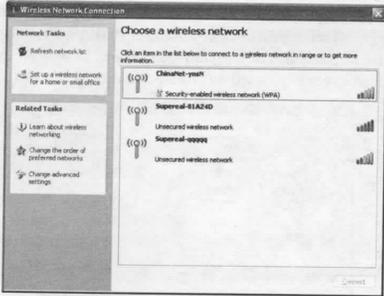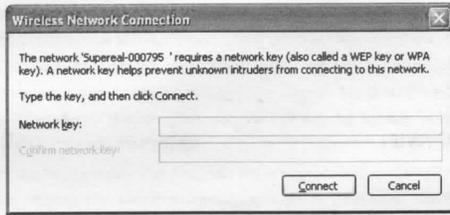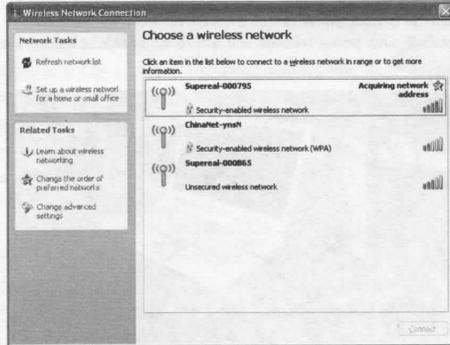

Figure 7

Figure 8

Figure 9

3.2 Wireless LAN card

(1) The key [AP/WiFi] is located at WiFi as below:(Figure 10)

AP/WIFI ——————— USB

Figure 10

(2) Connect the mini interface of the USB cable to pocket router;
(3) Connect the standard interface of the USB cable to the desktop computer or notebook without wireless network card: (Figure 11)
(4) Install the Broadcom Wireless LAN Driver from the attached compact disk, and pocket router will serve as wireless network card.
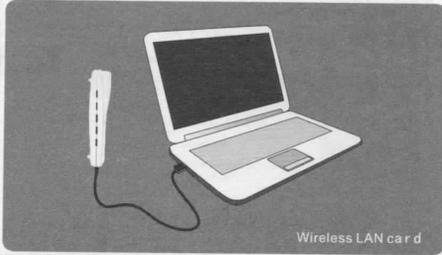
Wireless LAN card

Figure 11

★Annex★

1. What are wireless signals affected by?

1) Walls in the house with a limited space are the major barriers, as WLAN applies the wireless microwave frequency band. The key feature of microwave is nearly linear transmission, with terrible diffraction ability. Therefore, the wireless device behind the barrier receives weak signals or even no signal.

2) Physical barriers not only obstruct the wireless microwave signals, but also absorb the electromagnetic energy to generate weak current for leakage. So the floor with reinforced fabric is the major metal barrier for wireless signals in the house. It is almost impossible for the wireless signal to penetrate this barrier. Even if so, the signal is too weak.

3) The working frequency compliant with the standard IEEE 802.11/b/g is 2.4GHz. Many industrial equipments support this working frequency, like microwave oven, Bluetooth device, cordless telephone, or refrigerator. In case of any strong magnetic filed nearby, the wireless network will be disturbed.

4) When two or more wireless devices work under the same environment, there could be channel conflicts or wireless signal cross-talks.

5) Such strong signal interference sources as radio transmitter, welding machine, electric car or high-voltage power transformer within 100m away from the wireless device or cable network may also greatly interfere with the wireless signals or devices.

6) The weather may influence the wireless signals in outdoor transmission. Wireless signals are usually weakened obviously in stormy or cloudy days but transmitted farther in sunny days.

2. How can we improve the signal transmission quality?

1) Select the best location to lay the wireless AP as described below: First, it should be high enough to overcome the barriers and reduce the dead signal area. Second, it should allow direct signal transmission without walls acting as barriers. It is better that the wireless AP is visible to the wireless client in your room.

2) Change the channel to reduce wireless cross-talks. Note: There should be at least 5 channels between your wireless signal transmitting channel and other people's.

3) Reduce the interference from household appliances to smooth the signals. Lay the wireless AP away from those appliances.