

**User Manual** 

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## CONTENTS

| 1 Product Introduction  | 2 |
|-------------------------|---|
| 1.1 Product Features    |   |
| 1.2 Security Warning    | 2 |
| 1.3 Package Contents    |   |
| 2 Installation Guide    | 3 |
| 2.1 Installation Steps: | 3 |
| 3 Connect to Network    | 7 |

## **<u>1 Product Introduction</u>**

Thank you for choosing the 150Mbps Wireless mini-USB Adapter.

The Wireless mini-USB Adapter is a cost-effective, highly integrated Wireless product, fully complies with 802.11b/g/n specifications, adopting 1T1R architecture, up to 150Mbps data rate. You can connect a desktop or notebook computer to a wireless network and access high-speed Internet connection which is beneficial for the such as HD video streaming and online gaming applications. It is good choice for home and travel.

### **1.1 Product Features**

- > Complies with 802.11n specifications
- > Backward compatible with 802.11b/g wireless networks
- > Up to 150Mbps raw data transfer rate
- > Support WPA and WPA2 to safeguard wireless network access security
- > Mini design can go with you everywhere
- ➢ USB 2.0 interface

### 1.2 Security Warning

- > Please install and use this product after you have completely read this user manual.
- In order to guarantee the product to work correctly, please pay attention to the waterproofing and damp proofing.
- > Get away from some harmful substances (such as acid, alkali, etc.).
- > Please do not use this product directly in the sun or other sources of heat.
- If a failure occurs, please contact our customer service department, do not open this product by yourself.

### **1.3 Package Contents**

- 150Mbps Wireless mini-USB Adapter
- Use CD-ROM
- Warranty card

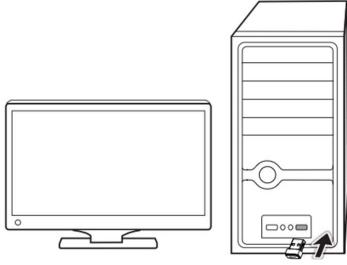
## **2 Installation Guide**

This section will teach you how to use the CD-ROM software for the installation of your Wireless USB Adapter package, the package has been the driver, configuration software, which installs its configuration software will automatically install the driver.

Take Windows XP Operating system as an example, installation steps for other operating systems are similar.

## 2.1 Installation Steps:

1. Please plug the Wireless USB Adapter into the computer's USB Interface.



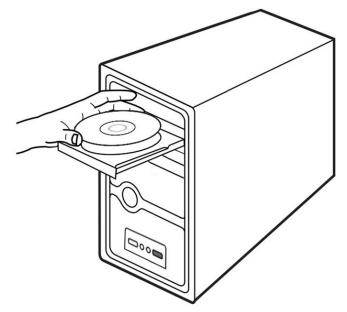
(Figure 1)

2. You may see the **Found New Hardware** Wizard after the adapter has been inserted. Please click "**Cancel**".



(Figure 2)

3. Insert the Resource CD into the CD-ROM driver.

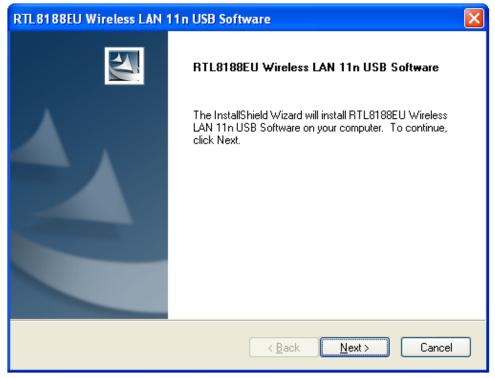


(Figure 3)

4. Please double-click the "Setup" file in the CD-ROM.



5. Click "Next" to continue installation.



(Figure 5)

6. Next, the installation process will take about a minute, please wait for a second.

| RTL818      | BEU Wireless LAN 11n USB Software   | × |
|-------------|---|---|
| Setup       | Status  |   |
| RTL         | 8188EU Wireless LAN 11n USB Software is configuring your new software installation. |   |
| Insta       | lling   |   |
| C:\P        | rogram Files\InstallShield Installation Information\{}\ISSetup.dll                  |   |
|             |   |   |
|             |   |   |
| InstallShie | eldCancel   | ) |
|             | (Figure 6)  |   |
|             | Now installing RTL8188EU Wireless LAN 11n USB 2.0 Network Driver                    |   |
|             | (Figure 7)  | _ |
|             | Now installing RTL8188EU Wireless LAN 11n USB Utility                               |   |

(Figure 8)

7. It will appear the interface as below picture after finishing all of the above operations, you can choose "**restart my computer now**" or "**restart my computer later**", Click "**Finish**" to complete the installation.

| RTL8188EU Wireless LAN 11n USB Software |  |
|---|--|
|   | InstallShield Wizard Complete<br>The InstallShield Wizard has successfully installed<br>RTL8188EU Wireless LAN 11n USB Software. Before you<br>can use the program, you must restart your computer.<br>• Yes, I want to restart my computer now.<br>• No, I will restart my computer later.<br>Remove any disks from their drives, and then click Finish to<br>complete setup. |
| < Back Finish Cancel                    |  |

(Figure 9)

## **3 Connect to Network**

This section will teach you how to use Wireless LAN Utility to connect to the wireless network.

#### Please refer to the following steps:

1. When the wireless USB adapter installation successfully, right the table's bottom will show an icon as follow:



2. Please click that diagram mark will be appear as follows interface.

| 🙈 REALTEK 11n USB W            | ireless LAN Utility   |       |
|--------------------------------|---|-------|
| Refresh(R) Mode(M) Abou        | ıt(A)   |       |
| MyComputer     Realtek RTL8188 | General Profile Available Network Status Statistics Wi-Fi Protect Setup |       |
| Realter R Loiot                | Status: Not Associated  |       |
|                                |   |       |
|                                | Speed: N/A  |       |
|                                | Type: N/A   |       |
|                                | Encryption: N/A   |       |
|                                | SSID:   |       |
|                                | Signal Strength:  |       |
|                                | Link Quality:   |       |
|                                |   |       |
|                                |   |       |
|                                |   |       |
|                                | Network Address:  |       |
|                                | MAC Address: 00:E0:5C:00:00:64  |       |
|                                | IP Address: 0.0.0.0   |       |
|                                | Subnet Mask: 0.0.0.0  |       |
|                                | Gateway:  |       |
|                                | ReNew IP  |       |
|                                | Review 19   |       |
| < >                            |   |       |
| Show Tray Icon                 | Disable Adapter   | Close |
| Radio Off                      | U Windows Zero Config   | 0008  |

(Figure 11)

3. Select the **"Available Network"** options, then click the **"Refresh"**, the Wireless USB Adapter will search usable network automatically, shows as below diagram:

| REALTEK 11n USB W       | ireless LAN Utility   |                  |
|-------------------------|---|------------------|
| Refresh(R) Mode(M) Abou | t(A)  |                  |
| 🖃 😼 MyComputer          | General Profile Available Network Status Statistics Wi-Fi Protect Setup                                     |                  |
| Realtek RTL8188         | Available Network(s)  |                  |
|                         | SSID Channel Encryption Network Authentication  | Signal 1         |
|                         | 1 AES WPA2 802.1x   | 24% Ir           |
|                         | <sup>29</sup> CMCC-AUTO 1 AES WPA2 802.1x   | 24% Ir           |
|                         | 🖓 CMCC 6 None Unknown   | 24% Ir           |
|                         | PDDD222 6 TKIP/AES WPA2 Pre-Shared Key  | 60% Ir           |
|                         | <sup>1</sup> <sup>1</sup> DanDin_Music_9696 6 None Unknown  | 62% Ir           |
|                         | Pullriver WiFi 40 8 None Unknown  | 56% Ir           |
|                         | P 11 TKIP/AES WPA Pre-Shared Key/   | 92% Ir           |
|                         | <sup>10</sup> FullRiver WiFi X31 11 AES WPA Pre-Shared Key<br><sup>10</sup> RTK 11n AP 2.4G 11 None Unknown | 24% Ir<br>24% Ir |
|                         | A <sup>™</sup> RTK III AP 2.4G II None Unknown<br><sup>(3)</sup> SeaPai_96c1 11 None Unknown                | 24% Ir<br>24% Ir |
|                         |   |                  |
|                         |   | >                |
|                         | Refresh Add to Profile  | ]                |
|                         | Note  |                  |
|                         | Double click on item to join/create profile.  |                  |
|                         |   |                  |
| 🗹 Show Tray Icon        | Disable Adapter   | Close            |
| 🔲 Radio Off             | Windows Zero Config   |                  |

(Figure 12)

4. Then select an "Available Networks", click the "Add to Profile" to connecting the wireless network.

| REALTEK 11n USB Wireless LAN Utility |   |          |  |
|--------------------------------------|---|----------|--|
| Refresh(R) Mode(M) Abou              | t(A)  |          |  |
| 🖃 🚽 MyComputer                       | General Profile Available Network Status Statistics Wi-Fi Protect Setup |          |  |
| Realtek RTL818                       | Available Network(s)  |          |  |
|                                      | SSID Channel Encryption Network Authentication                          | Signal 1 |  |
|                                      | POCMCC-AUTO 1 AES WPA2 802.1x   | 24% Ir   |  |
|                                      | T <sup>9)</sup> CMCC-AUTO 1 AES WPA2 802.1x                             | 24% Ir   |  |
|                                      | 🖍 CMCC 6 None Unknown   | 24% Ir   |  |
|                                      | DDD222 6 TKIP/AES WPA2 Pre-Shared Key                                   | 60% Ir   |  |
|                                      | 🗱 🖓 DanDin_Music_9696 6 None Unknown                                    | 62% Ir   |  |
|                                      | Pullriver WiFi 40 8 None Unknown  | 56% Ir   |  |
|                                      | AP 11 TKIP/AES WPA Pre-Shared Key/                                      | 92% Ir   |  |
|                                      | I <sup>39</sup> FullRiver WiFi X31 11 AES WPA Pre-Shared Key            | 24% Ir   |  |
|                                      | INRTK 11n AP 2.4G 11 None Unknown                                       | 24% Ir   |  |
|                                      | 🔊 SeaPai_96c1 11 None Unknown   | 24% Ir   |  |
|                                      | Refresh Add to Profile  |          |  |
|                                      | Refresh Add to Profile  |          |  |
| <                                    | Double click on item to join/create profile.                            |          |  |
| Show Tray Icon Radio Off             | <ul> <li>Disable Adapter</li> <li>Windows Zero Config</li> </ul>        | Close    |  |

(Figure 13)

5. If the network is unsecured, you will directly connect to it. If it is security-enables, you can input the security key into the field below **Network key** and then click "**OK**" to continue.

| Wireless Network Properties:                             |                           |
|--|---------------------------|
| Profile Name: AP   | 802.1x configure          |
| Network Name(SSID):                                      | EAP TYPE :                |
|  | GTC                       |
| This is a computer-to-computer(ad hoc) network; wireless | Tunnel : Privision Mode : |
| access points are not used.                              |                           |
| Channel: 11 (2462MHz) 💌                                  | Username :                |
| Wireless network security                                |                           |
| This network requires a key for the following:           | Identity :                |
| Network Authentication: WPA2-PSK                         |                           |
| Data encryption: AES 🗸                                   | Domain :                  |
| ASCII PASSPHRASE   | Password :                |
| Key index (advanced): 1 🗸                                | Certificate :             |
| Network key:   |                           |
|  | PAC : Auto Select PAC     |
| Confirm network key:                                     |                           |
|  |                           |
|  |                           |

(Figure 14)

6. The wireless network connects a chain success, and will be appear as follows interface.

| 🚨 REALTEK 11n USB W     | ireless LAN Utility   |       |
|-------------------------|---|-------|
| Refresh(R) Mode(M) Abou | ıt(A)   |       |
| 🖃 🚽 MyComputer          | General Profile Available Network Status Statistics Wi-Fi Protect Setup |       |
| Realter R I Lolot       |   |       |
|                         | Status: Associated  |       |
|                         | Speed: Tx:150 Mbps Rx:150 Mbps  |       |
|                         | Type: Infrastructure  |       |
|                         | Encryption: AES   |       |
|                         | SSID: AP  |       |
|                         | Signal Strength: 92%  |       |
|                         | Link Quality:   |       |
|                         |   |       |
|                         |   |       |
|                         | Network Address:  |       |
|                         | MAC Address: 00:E0:5C:00:00:64  |       |
|                         | IP Address: 192.168.6.112   |       |
|                         | Subnet Mask: 255.255.255.0  |       |
|                         | Gateway: 192.168.6.1  |       |
|                         |   |       |
|                         | ReNew IP  |       |
| <                       |   |       |
| Show Tray Icon          | Disable Adapter   | Close |
| Radio Off               | Windows Zero Config   |       |

(Figure 15)

The whole allocation process has been already complete.

# **Appendix: Specifications**

| Normal                  |  |
|-------------------------|--|
| Standards and Protocols | IEEE 802.11n, IEEE 802.11g, IEEE 802.11b   |
| Interface Type          | USB 2.0 Standard, USB1.1 Compliant         |
| Frequency Band          | 2.4 ~ 2.4835GHz                            |
|                         | 11b: 1/2/5.5/11Mbps                        |
| Transmission Rate       | 11g: 6/9/12/18/24/36/48/54Mbps             |
|                         | 11n: Up to150Mbps Maximum                  |
| Modulation Technology   | DBPSK, DQPSK, CCK, OFDM, 16-QAM, 64-QAM    |
| Security                | WPA2/WPA-PSK(AES/TKIP), WEP 64/128BIT      |
| RF Power                | 20dBm (max)                                |
|                         | 11n HT40: -67dBm@10% PER                   |
| Sensitivity @PER        | 11n HT20: -69dBm@10% PER                   |
| Sensitivity @FER        | 11g: -72dBm@10% PER                        |
|                         | 11b: -81dBm@8% PER                         |
| Dimensions (L x W x H)  | 18.9x 14.6 x 6.25 mm                       |
|                         | Operating Temperature: 0°C∼40°C            |
|                         | Storage Temperature: -10℃~70℃              |
| Environment             | Operating Humidity: 10%~90% non-condensing |
|                         | Storage Humidity: 5%~95% non-condensing    |

## FCC RF EXPOSURE INFORMATION:

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

Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

### **SAR Exposure**

This device has been tested and meets the FCC RF exposure guidelines. The maximum SAR value reported is 0.617W/Kg (Body)

## EU regulatory conformance

The equipment named above is confirmed to comply with the requirements setout in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (2004/108/EC), Low-voltage Directive (2006/95/EC) and R&TTE (1999/5/EC). The equipment passed the test which was performed according to the following European standards:

•ETSI EN 301 489-1 V1.9.2 (2011-09)

•ETSI EN 301 489-17 V2.2.1 (2012-09)

•ETSI EN 300 328 V1.8.1 (2012-06)

•EN 62311: 2008

•EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013