

## AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution

### DOCUMENT OVERVIEW

This document describes the Alereon AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution package.

### 1.0 WIRELESS USB/ULTRA-WIDEBAND OVERVIEW

The AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution allows Ultra-wideband (UWB) wireless data transfer between two devices, as well as interoperability with other Certified Wireless USB devices. Certified Wireless USB is the new wireless extension to USB, combining the speed and security of wired USB technology with the convenience and ease-of-use of wireless. Certified Wireless USB supports robust high-speed wireless connectivity by utilizing the common WiMedia UWB radio platform developed by the WiMedia Alliance. UWB technology offers a solution for high bandwidth, low cost, and low power consumption. Certified Wireless USB is the first high-speed wireless personal interconnect technology to meet the needs of multimedia consumer electronics, PC peripherals, and mobile devices. Certified Wireless USB preserves the functionality of wired USB while eliminating the tangle of cable connections.

### 2.0 PACKAGE CONTENTS

Your AL5604/5612 USB Adapter and Worldwide Wireless Hub Solution package should contain both the USB Adapter and the Worldwide Wireless Hub. See [Figure 1](#).



Figure 1. USB Adapter and Worldwide Wireless Hub

In addition, there will be a CD containing all software (including drivers) and documentation for the AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution. See [Table 1](#) for package contents.

**Table 1. AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution Package Contents**

1	AL5604 Certified Wireless USB Adapter
2	AL5612 Certified Wireless USB Worldwide Wireless Hub
3	Documentation/Software CD

### 3.0 PRODUCT FEATURES

The AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution provides numerous features:

- Certified Wireless USB offers guaranteed interoperability with other Certified Wireless USB devices.
- Eliminates networking cable clutter.
- Windows XP compatibility via included software drivers.
- Compact designs help prevent desk clutter.
- Full one year warranty (see enclosed warranty sheet for details).
- 55–480 Mbps data rates, depending on range, application, and ambient wireless conditions.

### 4.0 SYSTEM REQUIREMENTS

The following specifications are necessary for each computer using the AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution:

- USB-equipped PC-compatible
- Windows XP with Service Pack 2 installed\*
- 1 GHz (or greater) processor
- 256 MB (or more) memory
- At least 50 MB of hard-drive space

\***Note:** Drivers for Windows Vista have not yet been released, but will be before the end of 2007.

### 5.0 RANGE

In normal home and business environments, Alereon recommends that the AL5604 USB Adapter and AL5612 Worldwide Wireless Hub be placed within 10 meters of each other for best operations. Under ideal circumstances, the AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution is capable of significantly longer ranges, but these are not guaranteed. Likewise, in environments with heavy EMF shielding or significant radio frequency (RF) noise, the USB Adapter and Worldwide Wireless Hub may need to be placed closer together for optimal performance.

### 6.0 SETUP

Perform the following steps to get your AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution up and running:

1. Remove all items from the packaging and inspect them for damage. If any appear to have been damaged in shipping, please contact Alereon Technical Support via this web form: <http://www.alereon.com/contact-us/>
2. Put the Documentation/Software CD into the PC to which you wish to attach the Worldwide Wireless Hub. An install program will automatically start running after insertion (if not, please double-click on the program icon on the CD, or reset your permissions to allow the program to run).
3. Follow the on-screen instructions to install the driver and software for the Worldwide Wireless Hub.
4. Attach the Worldwide Wireless Hub to the PC by plugging it into the USB port.
5. Perform steps 2-4 for the PC to which you wish to connect the USB Adapter.
6. Once you have finished these steps, your AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution should be working.

### 7.0 OPERATIONS

For details on how to use the Certified Wireless USB software, please see the *Alereon AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution Software Guide*.

## 8.0 FCC COMPLIANCE

### 8.1 Compliance Statement

The following compliance statement applies to both the AL5604 USB Adapter and the AL5612 Worldwide Wireless Hub:

**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.**

### 8.2 FCC Requirements

#### 8.2.1 Modification Voids Compliance Warning

**Warning:** Changes or modifications to the AL5604/AL5612 solution not expressly approved by Alereon can void the your warranty and place the AL5604/AL5612 outside FCC equipment authorization.

#### 8.2.2 Electromagnetic Interference Control

Electromagnetic Interference (EMI) is any signal or emission, radiated in free space or conducted along power or signal leads, which endangers the function of radio navigation or other safety service (the telephone and cellphones are considered to be safety services) or seriously degrades, obstructs or repeatedly interrupts a licensed radio communications service. Radio communications services include but are not limited to: AM/FM commercial broadcast, television, cellular services, radar, air traffic control, pager and personal communications services (PCS). These licensed services, along with unintentional radiators such as digital devices, including computer systems, contribute to the electromagnetic environment.

Electromagnetic Compatibility (EMC) is the ability of items of electronic equipment to function properly together in the electromagnetic environment. While the AL5604 USB Adapter and AL5612 Worldwide Wireless Hub have been designed and determined to be compliant with regulatory agency limits for EMI, there is no guarantee that interference will not occur in a particular installation. If they do cause interference with radio communications services, which can be determined by turning the device on and off, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the device with respect to the victim receiver
- Move the device away from the victim receiver
- Plug the device host into a different power outlet than the victim receiver so that the device system and receiver are on separate branch circuits

If necessary, consult your system service representative or an experienced radio/television technician for additional help in resolving interference.

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## 9.0 TROUBLESHOOTING

Below are troubleshooting steps to resolve the most common problems with your AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution.

### 9.1 Installation Software Does Not Start After CD Inserted

If the CD-ROM does not start the Alereon Software Installation program automatically, other applications could be interfering with the CD drive. If the Alereon Software Installation screen does not appear within 30 seconds, double-click on the "My Computer" icon. Next, double-click on the CD-ROM drive in which the Installation CD has been placed to start the installation. If the installation does not start automatically, right-click to select "Explore", then double-click on the installation icon.

### 9.2 Power LED Does Not Light Up; USB Adapter or Worldwide Wireless Hub Not Working

If the LED indicators do not light up, your USB Adapter or Worldwide Wireless Hub may not be connected. Verify that the USB Adapter or Worldwide Wireless Hub is plugged firmly into the USB port of your computer. Check to see that the drivers for the Card have been installed. Right-click on the "My Computer" icon on your desktop. Choose "Properties" and navigate to the "Device Manager" and see if the Alereon AL5604 USB Adapter or AL5612 Worldwide Wireless Hub is listed without any errors. If an error is indicated, contact Alereon technical support, as indicated in [Section 6.0, "Setup," on page 2](#).

### 9.3 Other Software Errors

For other software errors or driver difficulties, please see the *Alereon AL5604/AL5612 USB Adapter and Worldwide Wireless Hub Solution Software Guide*.

NOTES:

Work In Progress



**Alereon, Inc.**

7600 North Capital of Texas Highway  
Building C, Suite 200  
Austin, TX 78731

Telephone: (512) 345-4200

Fax: (512) 345-4201

[info@alereon.com](mailto:info@alereon.com)

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