# MSI UB11BM (MS-6823A)
## Wireless 11b Internal USB Adapter

# User's Guide

# *FCC Caution*

1.  The 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.
2.  FCC RF Radiation Exposure Statement: The equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.
3.  This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
4.  Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.

# *Copyright Notice*

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# *Revision History*

| Revision | History | Date |
|----------|---------|------|
| V 1.0 | First Release | January 2004 |

# *Important Safety Precautions*

Always read and follow these basic safety precautions carefully when handling any piece of electronic component.

1.  Keep this *User's Guide* for future reference.
2.  Keep this equipment away from humidity.
3.  Lay this equipment on a reliable flat surface before setting it up.
4.  The openings on the enclosure are for air convection hence protects the equipment from overheating.
5.  All cautions and warnings on the equipment should be noted.
6.  Never pour any liquid into the opening that could damage or cause electrical shock.
7.  If any of the following situations arises, get the equipment checked by a service personnel:

    ❏ Liquid has penetrated into the equipment

    ❏ The equipment has been exposed to moisture

    ❏ The equipment has not work well or you can not get it work according to User's Manual

    ❏ The equipment has dropped and damaged

    ❏ If the equipment has obvious sign of breakage

8.  DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT UN-CONDITIONED, STORAGE TEMPERATURE ABOVE $60^O$ C OR BELOW $-20^O$C, IT MAY DAMAGE THE EQUIPMENT.

# ① Introduction

The **MSI Wireless 11b Internal USB Adapter UB11BM** (MS-6823A, hereafter called UB11BM), compliant with IEEE802.11b, is a high-efficiency wireless adapter for wireless networking at home, in office or in public places.  This hot-plug, USB-interface adapter connects directly to any USB-ready desktop/notebook computers, so that you can share files, printers, and high-speed access the Internet over your existing wireless network easily, without disassembling your computer.

The UB11BM has a data rate up to 11Mbps, and can auto-negotiate to 5.5, 2, 1Mbps to be compatible with any IEEE 802.11b device.

The UB11BM is available to Microsoft Windows operating systems (Windows®XP/2000/ME/98SE) and can be integrated into networking with either **Ad-hoc mode** (computer-to-computer, without an Access Point) or **Infrastructure mode** (computer-to-access point, an Access Point is required).

○ **Ad-hoc Mode :** An Ad-hoc network is a local area network or other small network, especially one with wireless or temporary plug-in connections, in which some of the network devices are part of the network only for the duration of a communications session.  Users in the network can share files, print to a shared printer, and access the Internet with a shared modem.  In this kind of network, new devices can be quickly added; however, users can only communicate with other wireless LAN computers that are in this wireless LAN workgroup, and are within range.

○ **Infrastructure Mode :** The difference between Infrastructure network and Ad-hoc network is that the former one includes an Access Point.  In an Infrastructure network, the Access Point can manage the bandwidth to maximize bandwidth utilization.  Additionally, the Access Point enables users on a wireless LAN to access an existing wired network, allowing wireless users to take advantage of the wired networks resources, such as Internet, email, file transfer, and printer sharing. The scale and range of the Infrastructure networking are larger and wider than that of the Ad-hoc networking.

| | |
|---|---|
| **Form Factor** | USB 1.1, internal connector |
| **Operation voltage** | 5VDC (±0.5V) |
| **Standard** | IEEE 802.11b |
| **Frequency Range** | 2.4GHz to 2.497GHz |
| **Data Rate** | 1, 2, 5.5, and 11Mbps |
| **Network Protocol Support** | TCP/IP, NetBEUI, IPX/SPX |
| **Operating Channels** | - USA/Canada: 11 channels<br>- Europe: 13 channels<br>- Japan: 14 channels |
| **Media Access Protocol** | Direct Sequence Spread Spectrum (DSSS), DBSK, DQPSK, CCK |
| **Media Access Protocol** | CSMA/CA with ACK |
| **Security / Encryption** | 64-/128-bit WEP |
| **Range** | Outdoor: 50 ~ 300m<br>Indoor: 10 ~ 100m |
| **LED** | One Power/Link LED |
| **Operating system** | Microsoft® Windows® 98SE/ME/2000/XP |
| **Environmental** | - Operating Temperature:<br>  $0 \sim 45^{\circ}C$<br>- Operating Humidity:<br>  10 ~ 90%, non-condensing |

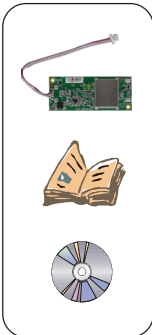## >>> 1.4  System Requirements

Before installing the UB11BM, your PC should meet the following items:

- One desktop/notebook PC with an available internal USB connector.

- Windows® 98SE/ME/2000/XP operating system.

- Minimum 5MB free disk space for installing the driver and utilities.

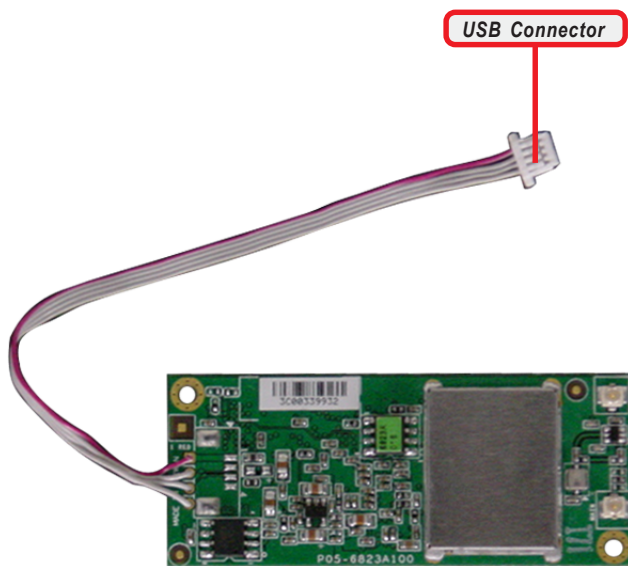- One CD-ROM drive, double speed or higher.

## >>> 1.5  Package Contents

Unpack the package and check all the items carefully. If any item contained is damaged or missing, please contact your local dealer as soon as possible. Also, keep the box and packing materials in case you need to ship the unit in the future. The package should contain the following items:

- One Wireless 11b internal USB Adapter - **UB11BM**.

- One Quick Start Guide, this *User's Guide*, and the Software AP/Gateway User's Guide.

- One Installation CD-ROM including drivers, utilities, and the user's manual.

USB Connector

# 2 Software Installation

This chapter describes the procedures of installing the driver and utility. Follow the instruction step by step to finish the installation. If you use Windows® 98SE/ME, please prepare the Windows® Setup CD at hand before installing the driver; because the system will ask you to insert the Setup CD to copy files during the installation.

Please **NOTE** that the UB11BM should be installed into your computer before installing the driver and utility. Then, the operating system will detect a new device and start to configure the new device. Click *Cancel* here to start installation from the InstallShield Wizard.



*Click*

*Tip: The wireless LAN adapter should be installed into your PC before installing the driver and utility.*

**Step 1.** Insert the software CD into your CD-ROM drive, and the Setup program should launch automatically.

If the Autorun program doesn't launch automatically, click **Start** at the taskbar and select **Run...**. Type *E:\setup.exe* (where *E* is your CD-drive) in the Open box and click *OK* to launch the Setup program manually.

The main screen of Setup program will appear as below. Click the **Install Software** button.



**Step 2.** The welcome screen of InstallShield Wizard appears. Click *Next*.

Read and accept the License Agreement; then, click *Next*.

In the following window, enter the user's information (*User Name, Organization*) in the respective fields; then, click *Next*.

**Step 3.** Click *Install* and the program will copy the necessary files to the system. The progress indicator shows the installing status.

If you use Windows 98SE/ME, you may be asked to insert the Windows Setup CD during the installation. Please insert the Setup CD by the on-screen instruction to continue the installation.

**Step 4.** Click *Finish* when the installation is completed. The **MSI Wireless LAN** icon* will appear in the status area.



*MSI Wireless LAN icon*

# **3** **Wireless Network Utility**

After installing the driver, MSI UB11BM provides a convenient and powerful utility that allows you to set up, configure, and know your networking status easily and clearly.
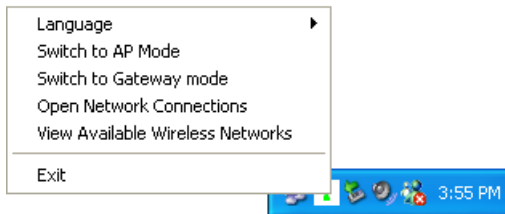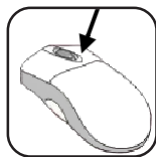
## >>> 4.1  Introduction

**The MSI Wireless LAN icon**

- Not connected to the network.
- Connected to the network.
- Receiving/transmitting data from/to the network.

When you move the mouse over the icon, it shows the current connection information.

**Wireless Network Connection** ✕
Connected to: MSI
Signal Strength: Excellent

3:24 PM

◒ **Right-clicking** the icon will bring up a sub-menu containing more settings:

| Language | ▶ |
| Switch to AP Mode | |
| Switch to Gateway mode | |
| Open Network Connections | |
| View Available Wireless Networks | |
| Exit | |

3:55 PM

**Language**
You can select language according to your operating system.

**Switch to AP Mode** (optional)
If your MSI wireless LAN adapter supports Software AP function, you can see this item in the sub-menu, and which allows you to use your MSI wireless adapter as a virtual access point.  For details, refer to the  *MSI Software AP/ Gateway User's Guide.*

**Switch to Gateway Mode** (optional)
If your MSI wireless LAN adapter supports Software Gateway function, you can see this item in the sub-menu, and which allows you to use your MSI wireless adapter as a virtual gateway.  For details, refer to the  *MSI Software AP/Gateway User's Guide.*

**Open Network Connections**
Select to open the Network Connections window.

**View Available Wireless Networks**
Launch the utility to configure your network settings.

**Exit**
Close the program.

❏  **Clicking** the icon will launch the utility as shown below to configure your network settings.