# **Bluetooth USB Dongle**



## **User Guide**

#### **DECLARATION**

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#### 1 Product Description

#### 1.1 Introduction

Thank you for purchasing this versatile Bluetooth wireless communication product. Bluetooth wireless technology is one kinds of short-range radio technology within the feature such as low-cost, short-range and low power etc. And developing by Ericsson, Intel, 3com, Nokia, Toshiba, and other well-known companies.

The special feature, short-range radio link, of Bluetooth wireless technology can be replace the traditional wire connect between PC and others digital devices. Let you connect all the devices together: Desktops, Laptops, telephones, PDAs, Fax machines, Printers and Keyboards via Bluetooth wireless technology.

This Bluetooth USB Dongle has built-in Bluetooth wireless technology. Just experience the convenience in Bluetooth service: wireless networking access, file transfer, wireless fax, and information synchronization etc. Welcome to Wireless World.

#### 1.2 Product Specification

Input Power	5.0V DC (USB power)
Operation Voltage	1.8V for core logic, 1.8V for RF, 3.3V for I/O
Frequency Range	2402 – 2480MHz, in 2.4GHz license-free ISM
	band
Data Rate	720 kbps
Power Consumption	Peak current in ACL data transfer 720Kbps =
(T=25 )	55mA
(T=25 )	55mA Peak current in SCO HV1 connection = 60mA
(T=25 )	
(T=25 )  Receiver Sensitivity	Peak current in SCO HV1 connection = 60mA
	Peak current in SCO HV1 connection = 60mA Stand by current = 100µA
Receiver Sensitivity	Peak current in SCO HV1 connection = 60mA Stand by current = 100µA -80dBm (Single slot BER = 0.1%)

#### 1.3 Notes to Installation

- 1.3.1 This User Guide description as Microsoft Windows 2000 operation system. If you are Mac user. Please refer to the 6<sup>th</sup> description.
- 1.3.2 Please read this User Guide carefully before installation.
- 1.3.3 Please complete software installation, after that you can set the USB Dongle to computer.

#### 2 Software Installation

#### 2.1 System Requirement

To ensure the device operate correctly, It is necessary to check your system in the minimum requirements as described below:

♦ Windows

Processor : Intel Celeron/Pentium III or above.

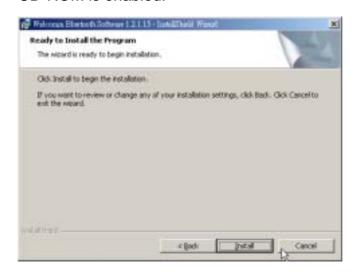
- Operation System : Windows 98SE/ME/2000/XP

- System Memory : 32MB a t least

- Hard Drive Free Space : 12MB

#### 2.2 Start to installation

Step1 Insert the Software CD into CD-ROM drive. Installation program will start automatically if the auto-run function of CD-ROM is enabled.

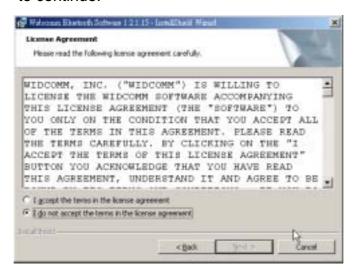


If the installation program not process automatically, you can utilize the Windows Explorer to browser CD content and run SETUP.exe manually.

Step2 With ensuring windows appears, please click "Next" button to continue the software installation.



Step3 In "License Agreement" window, please select "*I accept the terms in the license agreement*" item, and click "Next" button to continue.

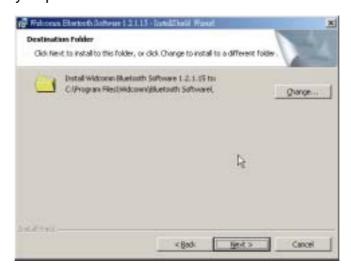


Step4 In "Device Information" window, please fill in the blank with a name that the computer you install the Bluetooth USB Dongle. This name will show to other Bluetooth devices in Bluetooth environment. And in "Device Type" item, please choose your computer type (Desktop /Laptop). Then click "NEXT" to continue.

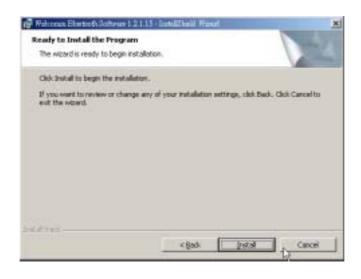


Step5 The software default destination folder is located in:

C:/Program File/ Widcomm/ Bluetooth Software. If you want to change the folder, please click "Change" to select a path you prefer.



Step6 After set the path, please click "Install" button to start installation program.



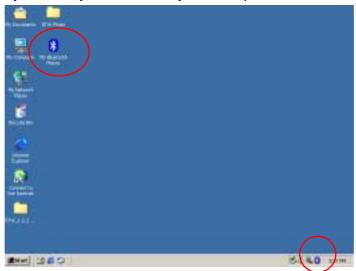
Step7 During the processing of the Bluetooth software installation, it is possible to appear Microsoft Digital Signature issues such as: Bluetooth Null Modem、Bluetooth Modem、Bluetooth FAX Modem、Bluetooth LAN Access Server Driver. Please confirm them manually by pressing "Yes" button from the pop-up windows so as to finish the entire installation.



Step8 Please reboot your system after the software installation is finished.



Step9 There are two Bluetooth icons appear on the desktop and system tray after restart your computer.



Note: Under Windows 98SE or Windows ME environment. You have to use "WinRoute Lite" software to act as a router. You can get a downloadable trial version at:

http://www.tinysoftware.com.

#### 3 Hardware Installation

Step1 Install the Bluetooth USB Dongle to desktop or laptop that within USB port.



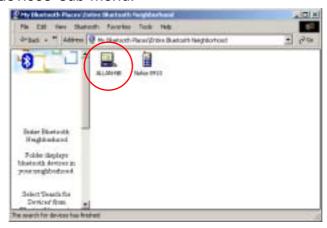
Step2 You can use the Bluetooth USB Dongle at two computers or one pc and the other one Bluetooth device.

## **4 Function Description**

#### 4.1 Bluetooth Serial Port

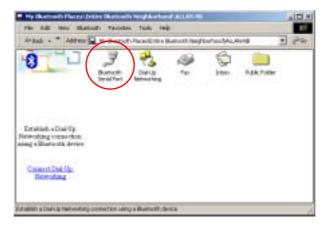
The Bluetooth Serial Port service allows two Bluetooth devices to establish a wireless connection through virtual communications ports and then use that connection as if it were a hardwired serial cable between the devices. The process as:

Step1 Select the device you want to connect at the Bluetooth Neighborhood of Bluetooth Places. Double-click to enter the devices' sub-menu.



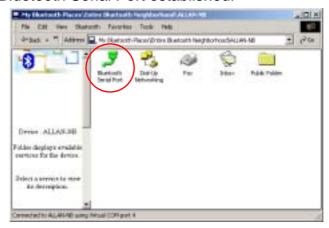
Step2 All the services that the device provides will appear.

Double-Click the "Bluetooth Serial Port" icon to start connection.



Step3 The icon of "Serial Port" will turn to be green after the

#### Bluetooth Serial Port established.



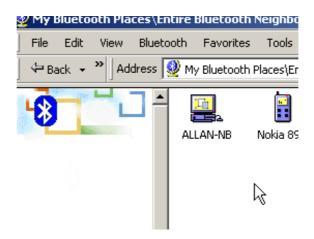
#### 4.2 Dial-Up Networking

This service permits a Bluetooth client to use a modem that is physically connected to a different Bluetooth device. Possible Dial-Up Networking devices including:

- Bluetooth-enabled computer with a modem connected
- Bluetooth-enabled mobile telephone.
- Stand-alone Bluetooth-enable modems.

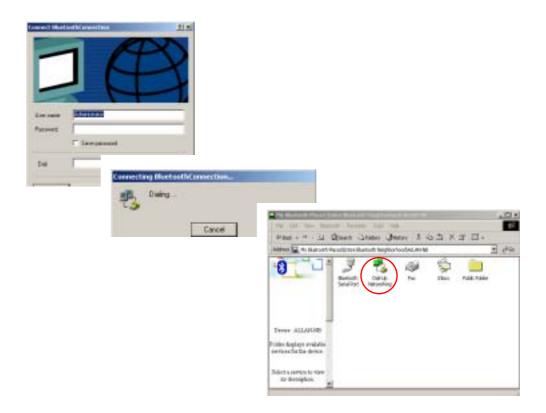
To establish a Dial-up Networking session, please follow the process as below:

Step1 Select the device you want to connect at the Bluetooth Neighborhood of Bluetooth Places. Double-click to enter the devices' service items.



Step2 Double-click the "Dial-up Networking" icon and a pop-up dialog box appears to asking the user ID and Password.

Press the "connect" button after fill in the ID and password to start connecting. The "Dial-Up" icon will turn to be green color after the connection established.



#### 4.3 Networking Access

This service permits a Bluetooth client to use a Local Area Network connection that is physically attached to another Bluetooth device. The possible Network Access servers include:

- Bluetooth-enabled computers that have a hardwired Ethernet connection.
- Stand-alone Bluetooth Network Access Points.

To enable the Networking Access service allow other Bluetooth devices, please setup the following configuration as below:

Step1 Set the "Internet Connection Sharing"

- A. Configuration in Windows 2000
  - 1. From the Windows Start/Control Panel, select

Networking and Dial-Up Connections icon.



2. Right-click the "Local Area Connection" icon and select "Properties"



3. Select "Enable Internet Connection Sharing for this connection" button in on the "Sharing" tab. And press OK.





4. Click "Yes" button in the confirmation dialog box.



## B. Configuration in Win98 SE

 Install WinRoute Lite software ( You can get a downloadable trial version from: http://www.tinysoftware.com ) , and then restart the computer.



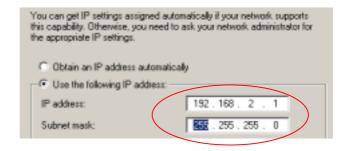
2. Select Windows Start/Control panel/Network to set "Bluetooth LAN Access Server Driver".



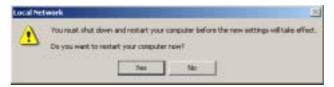
Select TCP/IP - > Bluetooth LAN Access Server
 Driver, press IP address tab, select specify IP address and enter a suggested value as :

- IP Address: 192.168.2.1

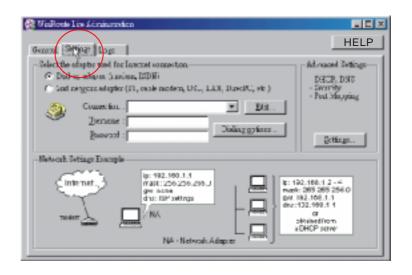
- Subnet Mask: 255.255.255.0



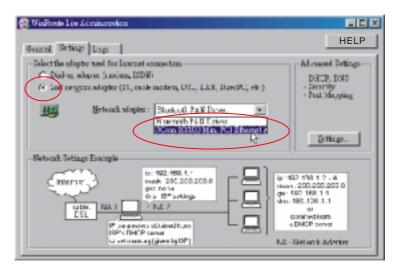
4. Click "YES" to restart the computer



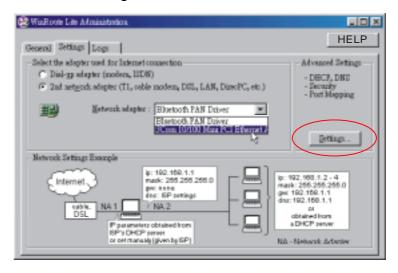
5. After restart the computer, double-click the "WinRoute Lite Administration" icon in the windows system tray, and select "Setting" tab"



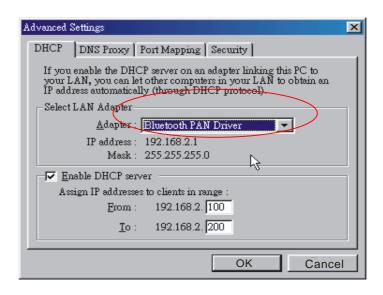
 In the "Setting" tab, select <sup>Γ</sup>2<sup>nd</sup> networking adapter <sub>J</sub>, and choose one network adaptor other than Bluetooth PAN Driver from the Networking adaptor drop-down list.



7. Press "Setting..." button in the Advanced Setting section in the right side of same tab.

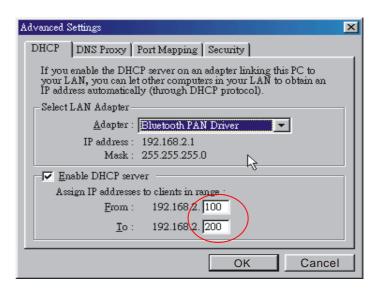


8. In the "DHCP" tab, select "Bluetooth PAN Driver from the "Select LAN Adapter" drop-down list.

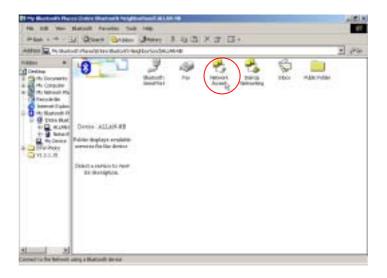


9. Select "Enable DHCP server", and fill in the IP address range fields:

From: 192.168.2.100 To: 192.168.2.200



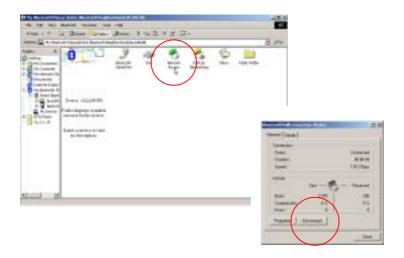
Step2 Select the device you want to connect at the Bluetooth Neighborhood of Bluetooth Places. Double-click to enter the devices' service items.



Step3 Double-click at "Networking Access" icon to start to communicating to others Bluetooth enable devices, a pop-up dialog box appear to asking ID and Password, press "Connect" button after fill in ID and Password.

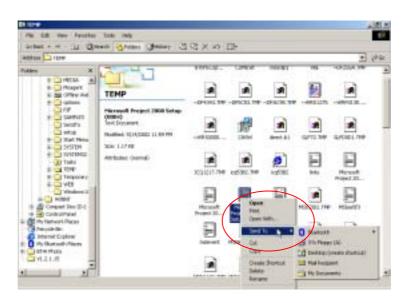


Step4 When the connection is established, the "Network Access" icon will turn to be green color. And the system tray will show the status of connection. You can double-click the icon when you want to disconnect a Network Access service.



#### 4.4 File Transfer

This service allows one Bluetooth device to perform file operations on the default File Transfer directory (and the folders and files it contains) of another Bluetooth device. Select one file you want transfer and right-click to choose "Transfer to" from the pop-up menu to transfer file.



#### 4.5 Information Exchange

This service provides a way to send and receive Microsoft Outlook items to and from another Bluetooth device, such as: Business cards, Calendar entries, Notes and Messages etc. Select the device you want to connect at the Bluetooth Neighborhood of Bluetooth Places. Double-click to enter the devices' service items. And right-click to select the service you want: Send, Receive or Exchange.

#### 4.6 Information Synchronization

This service provides information synchronization between two Bluetooth devices (e.g., a PIM database). Microsoft Outlook is the only PIM supported in this release of BTW. Only Outlook's default contacts folder is synchronized. Items in sub-folders are not synchronized.

You can follow the process as below to use Information Synchronization:

- Step1 Select the device you want to connect at the Bluetooth Neighborhood of Bluetooth Places. Double-click to enter the devices' service items.
- Step2 Double-click at "Information Synchronization" icon to star synchronization. There is a dialog box display synchronization progress, when the process is complete, indicates that synchronization has successfully completed. And the connection will close automatically when synchronization is complete.

#### 4.7 Fax

The Fax service allows a Bluetooth client to wirelessly send a fax using a device that is physically attached to a Bluetooth server:

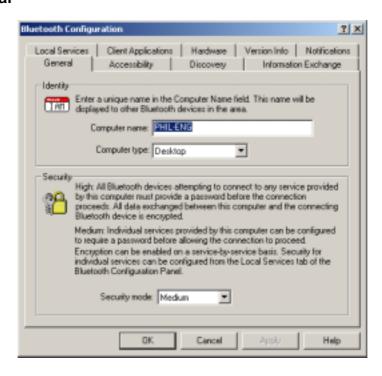
- Step1 Select the device you want to connect at the Bluetooth Neighborhood of Bluetooth Places. Double-click to enter the devices' service items.
- Step2 Double-click at "Fax" icon to establish connection, and then you can send the Fax via fax application or use the "Print" and "Send to Fax Recipient.
- Step3 The service will closes automatically when the transmission is completed

## 5 Bluetooth Software Configuration

After install the Bluetooth software (BTW), you can see the Bluetooth icon at windows system tray after restart the computer. Right-click the icon and select Setup and then Configuration from the submenu to settings for Bluetooth services, hardware and security and for event notification that describe as follows:



#### 5.1 General



#### Identity

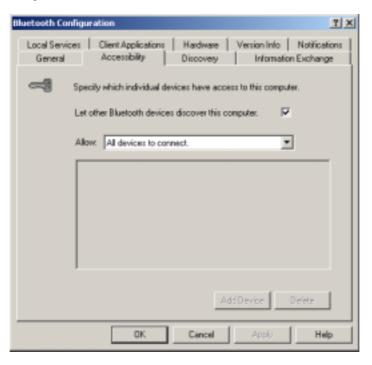
In this section, you can set your computer name at "Computer Name" column to introduce this computer to others Bluetooth devices. A valid computer name is between 1 to 247 characters.

Besides, you can select the type of your computer type: Desktop or Laptop.

#### - Security

In this section, there are two degrees to choose: Medium or High.

#### 5.2 Accessibility

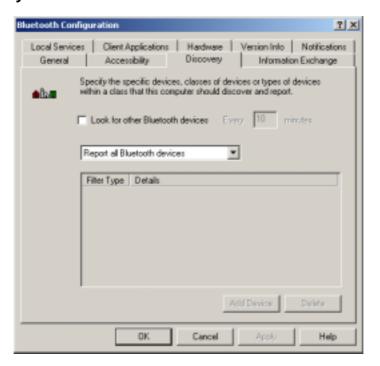


- You can let other Bluetooth devices discover your device if the button "Let others Bluetooth devices discover this computer" is selected.
- There are four configuration at this option in drop-down list to selected:
  - No devices to connect

Your computer can still connect other Bluetooth devices, but others Bluetooth devices cannot connect your computer or use all services.

- All devices to connect
   Default setting, it allow all Bluetooth devices connect to this computer.
- Only paired devices to connect
   Only the devices, which have been paired, are allows connecting this computer.
- Only devices listed below to connect
   Only the devices, which list in "Add Devices" box, are allows connecting this computer

#### 5.3 Discovery



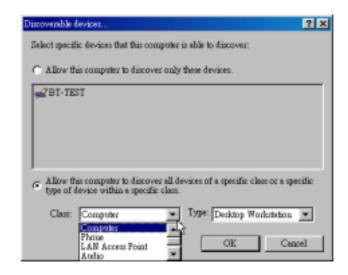
- The settings determine whether your computer looks for other Bluetooth devices automatically and how often it looks and what type of devices it looks for. To perform a periodic search for devices: when "Look for other Bluetooth devices" is selected, BTW automatically searches for devices every "X" minutes. X is an integer from 1 to 60.
- There are two modes on drop-down list:

- Report all Bluetooth devices its system default option, the Bluetooth Neighborhood windows will display all devices found by your computer.
- ◆ Report only selected Bluetooth devices you can set filter by pressing "Add device" button.
  - a. Allow this computer to discover specific devices Check the "Allow this computer to discover specific devices" button is selected, and pressing OK after selected the Bluetooth device that show in filter list dialog box.

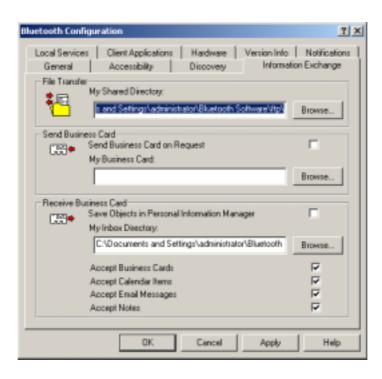


b. Allow this computer to discover specific or type of devices within a class

Check the "Allow this computer to discover specific or type of devices within a class" button is selected, and pressing OK after selected others Bluetooth devices' type.



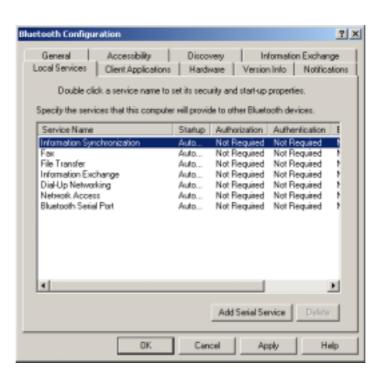
## 5.4 Information Exchange



- At the column of File Transfer, Click the Browse button and

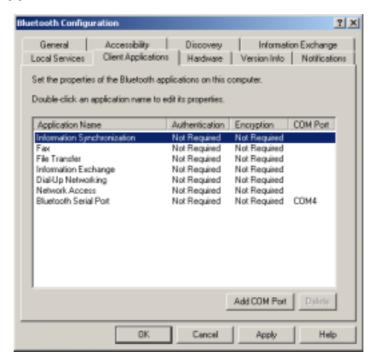
- navigate to the directory that will be used as My Shared
- Select the "Send Business Card on Request" option to allow remote devices to obtain your business card. Click the Browse button and navigate to the directory that contains your business card.
- Select the "Save Object in Personal Information Manager" option to save incoming objects directly in the PIM, and then click the Browse button to navigate to the directory where they should be saved.

#### 5.5 Local Service



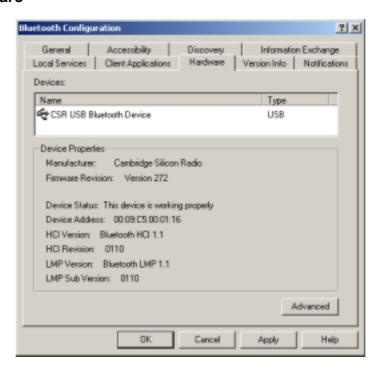
 You can choice the configuration of the services provided by your computer to remote devices. And add and delete user-defined serial services.

#### 5.6 Client Application



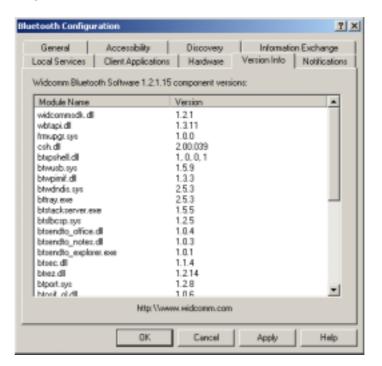
 This tad allows you to set Bluetooth Devices' security, application name or add/delete a user-defined COM port.

#### 5.7 Hardware



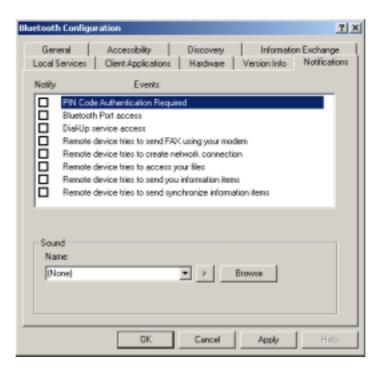
- This tab shows information of Bluetooth Device in local computer. You can change transmission power at "Advance" setting.

#### 5.8 Version Info



- Shows version number information.

#### 5.9 Notification



- You can choice sound notice for each service, Just dial "Browser" bottom to set sound.

#### 6 Others

#### 6.1 Mac user reference

- This product provides the function of file transmission between two Mac PC via Bluetooth or dial-up to access Internet via Bluetooth mobile phone.
- Try to download the application software here: <u>www.apple.com</u>, and refer to the user guide.

### **FCC-B Radio Frequency Statement**

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 when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

#### Notice 1

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

#### Notice 2

Shielded interface cable and A.C. power cord, if any, must be used in order to comply with the emission limits.

## **FCC RF Radiation Exposure Statement:**

- 1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- 1. This 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.