Socket® Wi-Fi® Products

For Windows Mobile

- *Hardware: Go Wi-Fi!™*
  Versions E300, E500, P300, P300x, P500, and P500x

- *Software: Wi-Fi Companion*

User's Guide

Copyright Notice

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Feel free to contact SOCKET MOBILE at:

> **Socket Mobile, Inc.**
> 39700 Eureka Drive
> Newark, CA 94560
> USA

Other than the above, Socket Mobile can assume no responsibility for
anything resulting from the application of information contained in this
manual.

Socket Mobile requests that you refrain from any applications of Go Wi-Fi!
or Wi-Fi Companion that are not described in this manual. Please refrain
from disassembling the card. Disassembly of this device will void the
product warranty.

You can track new product releases, software updates and technical
bulletins by visiting the Socket website at: www.socketmobile.com.

2

Table of Contents

1 | Introduction

Socket Wi-Fi products for Windows Mobile are the perfect tools to connect to enterprise and public Wi-Fi systems, so you can access email, the Internet, and corporate servers from your favorite Pocket PC.

Socket Go Wi-Fi!

Available in both Secure Digital (SD) and CompactFlash (CF) form factors, Socket Go Wi-Fi! wireless LAN cards use Direct Sequence Spread Spectrum (DSSS) technology to provide a high-capacity network and are Wi-Fi Certified to interoperate with other Wi-Fi products. The E300 and E500 conform to IEEE 802.11b specifications with data rates up to 11 Mbps. The P300, P300x, P500 and P500x comply with IEEE 802.11b/g with data rates up to 54 Mbps.

The Battery Friendly® Go Wi-Fi! cards were designed to use minimal power, so you can use them longer without having to stop and recharge your Pocket PC.

The cards work with these types of WLAN security:
- Open systems
- 40/64-bit or 128-bit WEP encryption
- 802.1x with EAP-TLS or PEAP
- WPA and WPA-PSK (Windows Mobile 2003SE and 5.0 only)

Socket Go Wi-Fi! P300 and P500 also support AES and WPA-2 Enterprise. Odyssey Client from Juniper Networks is required. For more information, please visit:
www.juniper.net/customers/support/products/oac.jsp

Socket Wi-Fi Companion

Socket Wi-Fi Companion is an intuitive and graphical utility for either the SoMo 650 handheld computer or a Windows Mobile-base device enhanced with a Go Wi-Fi! card. The software enables you to find WLANs in range, view their properties in detail, and connect whenever your favorite networks are available. You can even manage power settings to maximize battery life. Plus, diagnostic tools and connection statistics are provided for advanced users.

4

System Requirements

Note: For information about support for MontaVista Linux and Real-Time Operating Systems (RTOS), please contact the Socket OEM Group at www.socketmobile.com/contact

Minimum device requirements for Go Wi-Fi! E300, P300 or P300x (SD cards):
- Windows Mobile 2003, 2003SE or 5.0
- Available SDIO slot
- For Windows Mobile 2003/2003SE, SDIO *Now!* software from BSQUARE is required in ROM
- Software installation requires a host computer with either Windows Vista or ActiveSync 4.0 or greater. Alternatively, advanced users can install a CAB file.

Minimum device requirements for Go Wi-Fi! E500, P500 or P500x (CF cards):
- Windows Mobile 2003, 2003SE or 5.0
- Available CF or PC Card slot (PC Card adapter required for PC slot)
- Software installation requires a host computer with either Windows Vista or ActiveSync 4.0 or greater. Alternatively, advanced users can install a CAB file.
- The Go Wi-Fi! E500 only connects to access points or radios that use long preamble. Every 802.11b/g access point supports long preamble, and most are configured this way by default.

Product Registration

Socket recommends that all customers register their Socket products. Registered users receive the following benefits:
- Priority for technical support
- Special offers for future products and product upgrades
- The latest new product information

Register online at: www.socketmobile.com/support/support/new.

Software updates: www.socketmobile.com/support/downloads

Go Wi-Fi! Status Indicator LEDs

*E300/P300 Link LED*

LED	LED Behavior	Meaning
Link	Off	Radio disabled/cannot transmit.
	Slow flash	Radio on, not connected.
	On	Connected

E500 LEDs

LED	LED Behavior	Meaning
Power ⏻ Green	Off	Radio disabled/cannot transmit.
	Flashing	Radio on, using Power Save Mode
	On	Radio on, not using Power Save Mode
Activity Amber	Off	Radio disabled/cannot transmit.
	Slow flash	Radio on, no data traffic.
	Rapid flash	Connected. Faster flash denotes greater network activity.

P500 LEDs:

LED	LED Behavior	Meaning
Power ⏻ Green	Off	Power off.
	On	Power on.
Activity Blue	Off	Not connected.
	Flashing	Transmitting/receiving data.
	On	Connected.

6

2 | Software Installation

Follow these instructions to install the software into your Windows Mobile-based device.

If you are using the SoMo 650, software installation is not required because Wi-Fi Companion is pre-loaded on the device.

ADVANCED USERS: For CAB file installation instructions, please refer to the README file in the installation CD.

1. If your device already has an older version of Socket WLAN software, you must completely remove it before you install the new software. Remove both the utility and the card drivers.

    - Make sure the WLAN card is not in the Pocket PC.
    - Tap Start | Settings | System tab | Remove Programs.
    - Select the WLAN card drivers and tap Remove.
    - Repeat to remove the WLAN utiity.
    - Soft reset the Pocket PC by pressing the reset button.

2. Use a serial/USB connection cable or cradle to make an active connection between your device and a host PC.
    - If your host computer is running Windows Vista, use the Windows Mobile Device Manager.
    - If your host computer is running Windows 2000/XP, ActiveSync 4.0 or greater is required.

3. Insert the installation CD into your host PC. Use My Computer or Windows Explorer to access your CD-ROM drive.
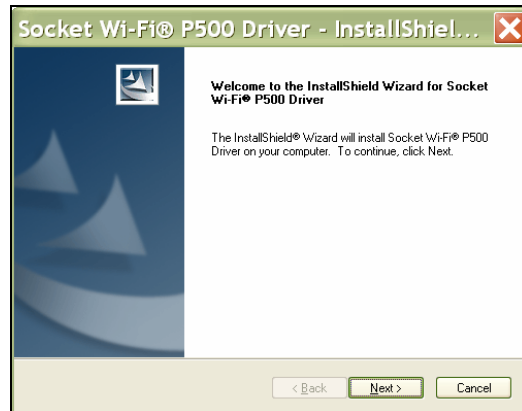

CD Drive

Alternatively, if you downloaded the software from Socket's website, extract and save the contents to your computer. Remember where you save the software.

4. *If you plan to use Socket Go Wi-Fi!*, you must install the card drivers first, then install Wi-Fi Companion. In the CD contents, click on the correct DriverSetup.exe file for your version of Socket Go Wi-Fi!

E300DriverSetup
Setup.exe
InstallShield Software Corporation

E500DriverSetup
Setup.exe
InstallShield Software Corporation

P300DriverSetup
Setup.exe
InstallShield Software Corporation

P500DriverSetup
Setup.exe
InstallShield Software Corporation

5. The InstallShield Wizard will begin. Follow the wizard to install the software.

Socket Wi-Fi® P500 Driver - InstallShiel...

Welcome to the InstallShield Wizard for Socket Wi-Fi® P500 Driver

The InstallShield® Wizard will install Socket Wi-Fi® P500 Driver on your computer. To continue, click Next.

< Back   Next >   Cancel

6. *If you plan to use Socket Go Wi-Fi!*, after installing the card drivers, install Wi-Fi Companion. Return to the CD contents and click on WIFISoftwareSetup.exe. Follow the wizard to install the software.

WIFISoftwareSetup
Setup.exe
InstallShield Software Corporation

7. After software installation, disconnect the Pocket PC from the host PC.

8. Soft reset the Pocket PC by pressing the reset button.

8

3 | Open or WEP-Enabled Networks

This section covers how to use Wi-Fi Companion to find, configure and connect your Pocket PC to a WLAN running an open system or WEP encryption. Before you begin the instructions in this chapter, make sure you have installed the software, as described in Chapter 2.

For help using the software, tap Start | Help.

Connection Summary
STEP 1: Prepare Wi-Fi Hardware.
STEP 2: Start Wi-Fi Companion.
STEP 3: Find a WLAN and create a profile.
STEP 4: Connect automatically to your network.

STEP 1: Prepare Wi-Fi Hardware

SoMo 650

Turn on the Wi-Fi radio built into the SoMo 650.

1. Press the button on the right side of the SoMo 650. By default, it is
    programmed to launch the Radio Manager. Alternatively, you can tap on
    the Wi-Fi icon in the Today screen.

2. In the Radio Manager, enable Wi-Fi. The Wi-Fi button should have a
    red "x" to indicate that Wi-Fi is disabled. Tap on the Wi-Fi button.

3. The "x" will vanish to indicate that Wi-Fi has been enabled, and the Wi-
    Fi LED will turn green.

10

Go Wi-Fi!

Insert the card into the card slot of your device. Make sure the card is positioned correctly in the slot. In most cases, it should be right-side up. Do not use excessive force, or damage may occur.
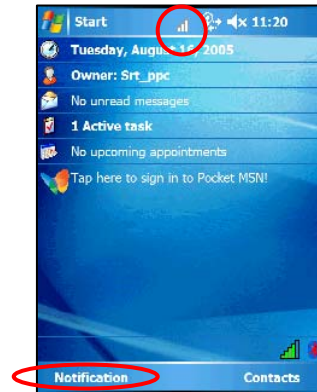
Note: To remove an SD card, press it into the slot. A spring will push the card out. Do not remove the card by simply pulling, or damage may occur.

STEP 2: Start Wi-Fi Companion

1. After you insert the WLAN card or turn on the WLAN radio of your Pocket PC, Wi-Fi Companion will automatically launch, indicated by the Socket status icon at the top of the screen. Tap on the icon. The icon varies depending on your connection status.
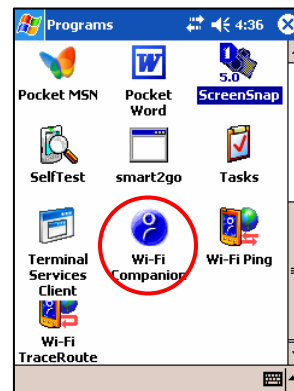
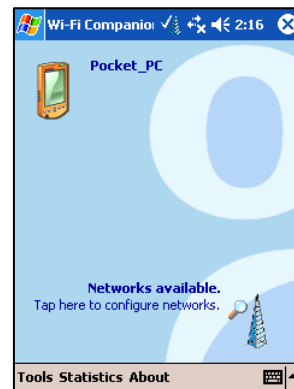*Socket status icon, search mode.*

Windows Mobile 5.0: You can also tap Notification at the bottom of the Today screen to access the main screen of Wi-Fi Companion.

Alternatively, you can manually start the program by tapping:

Start | Programs | Wi-Fi Companion.

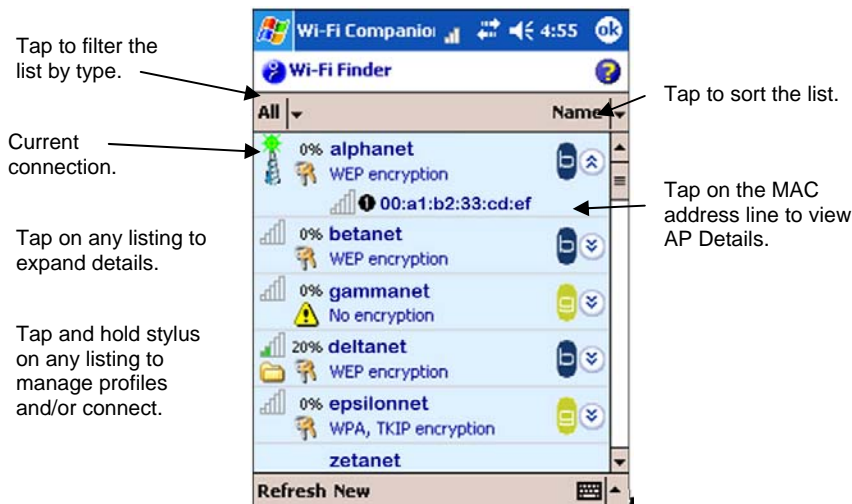2. The main screen of Wi-Fi Companion will appear.

12

STEP 3: Find and Connect to a WLAN

1. In the main screen of Wi-Fi Companion, tap on the large tower icon, or tap Tools | Wi-Fi Finder.

2. Wi-Fi Finder will list WLANs detected in range. Tap on any WLAN in the list to view additional properties.

   If desired, tap on the Type or Sort by drop-down menus to change how the list is displayed. By default, All types are displayed, sorted by Name. If your WLAN is not listed, tap Refresh.

Tap to filter the list by type.

Current connection.

Tap on any listing to expand details.

Tap and hold stylus on any listing to manage profiles and/or connect.

Tap to sort the list.

Tap on the MAC address line to view AP Details.

	Signal strength of strongest AP/ad hoc radio		Channel number
	WEP encryption, WPA (PSK), WPA (TKIP) or 802.1x		Profile saved
	No encryption		802.11b, 802.11g

3. If Wi-Fi Finder cannot find your WLAN because its SSID is hidden, tap New at the bottom of the screen to create a new profile for your network.

4. If your WLAN has a profile (indicated by a folder icon), Wi-Fi Companion may have already connected to it, indicated by a tower icon with a green burst on top.

To connect to a WLAN with a profile, tap and hold your stylus on the WLAN in the list. In the pop-up menu, tap Connect.

5. If your WLAN does not have a profile (no folder icon), tap and hold your stylus on the WLAN in the list, then tap Get connected to create a profile for the selected SSID.

Creating a WLAN Profile

After you tap New or Get connected in Wi-Fi Finder, you will be directed to Wireless Zero Config (WZC), the wireless connection editor built into Windows Mobile, to create a WLAN profile. For help with WZC, please refer to your Pocket PC manual. Consult with your network administrator to determine the settings needed to connect to your network.

1. In the Configure Wireless Network screen, enter the Network name (SSID) if it isn't already provided. The SSID is case-sensitive.

   Connects to:
   Select either The Internet or Work.

   Note: In most cases, you should select The Internet. *For a VPN/proxy server, refer to your Pocket PC manual for instructions.*

2. Follow the appropriate instructions for your type of network to enter the necessary security settings.
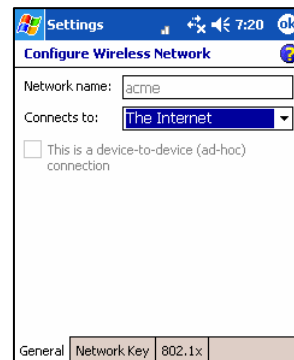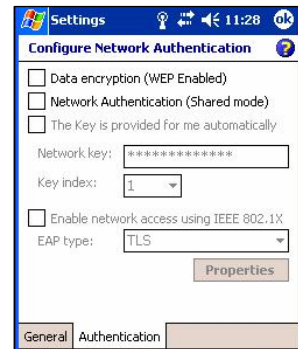
   Open Networks
   Depending on your Pocket PC version, your device may show two or three tabs at the bottom of the screen. If your device shows three tabs, enter the following settings:

   ➢ *Network Key tab:*
   Authentication: Select Open.
   Data Encryption: Select Disabled.

   ➢ *802.1x tab:*
   Do not enter any settings. Tap ok.

14
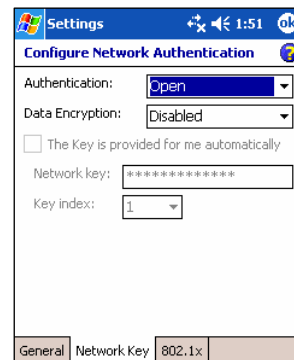
If your device shows two tabs, enter the following settings:

➢ *Authentication tab:*
Uncheck all boxes. Tap ok.

WEP-Enabled Networks

Make sure your WEP key has the correct length. For 40/64-bit WEP, the key length is 10 hexadecimal or 5 ASCII characters. For 128-bit WEP, the key length is 26 hexadecimal or 13 ASCII characters.

Depending on your Pocket PC version, your device may show two or three tabs at the bottom of the screen. If your device shows three tabs, enter the following settings:

➢ *Network Key tab*
  - Authentication: Select Open.
  - Data Encryption: Select WEP.

T

  . he Key is provided for me automatically:
    Uncheck. Enter the Network key and Key index. Use the correct key length.
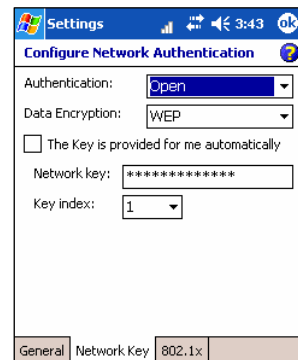
➢ *802.1x tab*
Uncheck Use IEEE 802.1x network access control and tap ok.
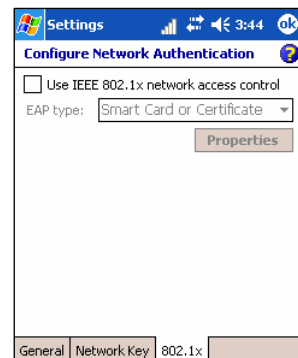
CHAPTER 3: OPEN OR WEP-ENABLED NETWORKS   15

If your device shows two tabs, enter the following settings:

➢ *Authentication tab*
- Data encryption: Check.
- Network Authentication: Check if your network is set up for this. In most cases, you should uncheck.
- The key is provided to me automatically: Uncheck. Enter the Network key and Key index. Use the correct key length.
- Enable network access using IEEE 802.1X: Uncheck. Tap ok.
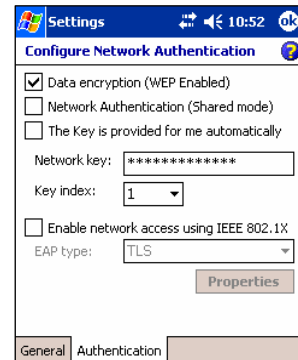
STEP 4: Connect Automatically to Your Network

1. After you enter the settings and tap ok, your device will automatically try to connect. You may see the Socket status icon at the top of your screen change from "networks available" to "networks out of range but configured."

2. When your Pocket PC has connected, the following will occur:
   - The Socket status icon will change to 1-5 bars.
   - The "x" will vanish from the connection icon.
   - In Wi-Fi Finder, the WLAN will appear first in the list, showing a signal tower with a green burst on top.

   Note: After you save a profile for a WLAN, Wi-Fi Companion will automatically try to connect to it whenever you insert the WLAN card or turn on the WLAN radio built into your Pocket PC.

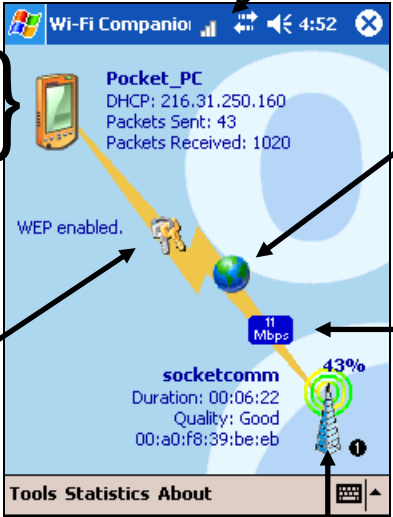3. Tap ok to return to the main screen.

Socket Status Icons

	Associated or Connected. Number of bars indicates signal strength.		Searching for networks.
	Networks available.		Networks out of range but configured.

16

Main Screen of Wi-Fi Companion
The screen content varies depending on your connection status.

Socket status icon. Tap to access this screen from outside the utility.

Your device properties.
- Device name
- IP address
- Packets sent and received

The icon always appears regardless of connection status. Tap to view more IP addresses. For P300/P500, also tap to turn the radio on/off

Internet ready. Tap to access email, the Internet, ping or trace route. Icon appears only when Internet access is ready.

Encryption status. Tap to access a certificate management utility for WPA or 802.1x if needed.

Data rate. Tap to view signal strength and data rate distribution.

Access point/remote device properties.
- SSID
- Connection duration
- Signal quality rating and percentage
- MAC address (also known as BSSID)
- Channel number (in black circle)

Tap for Wi-Fi Finder.

CHAPTER 3: OPEN OR WEP-ENABLED NETWORKS   17

4 | WPA or 802.1x Networks

This section covers how to use Socket Wi-Fi Companion to configure and connect your Pocket PC to a WLAN running WPA or 802.1x with PEAP or EAP-TLS authentication. Before you begin the instructions in this chapter, be sure to install the software, as described in Chapter 2.

WPA is supported by Windows Mobile 5.0 and 2003 Second Edition devices as well as some Windows Mobile 2003 (original version) devices with an updated ROM from the device manufacturer. If your device supports WPA, WPA and WPA-PSK options will appear in the "Configure Wireless Networks" screen.

For help using the software, tap Start | Help.

Connection Summary

STEP 1: Prepare network information.
STEP 2: Install authentication certificate(s).
STEP 3: Insert Go Wi-Fi! or turn on WLAN radio.
STEP 4: Find a WLAN and create a profile.
STEP 5: Connect automatically to your network.

18

STEP 1: Prepare Network Information

Verify Device and Network Compatibility

Some Pocket PCs can only connect to certain types of WPA and 802.1x networks. Check with your Pocket PC manufacturer. Your Pocket PC may only be able to connect to WPA and 802.1x networks that satisfy requirements such as:

- Windows Internet Information Service (IIS)
- Windows Internet Authentication Service (IAS)
- Windows Certification Authority (CA) with automatic approval and correct Pocket PC certificate format (via MS certificate template)
- Access point configured only for WPA or 802.1x (i.e., no multi-mode support or static 128-bit WEP keys)

Prepare Security Settings

If the network is compatible, ask the administrator for the necessary security settings:

- ❑ Wireless network name, known as SSID (case sensitive)
- ❑ Authentication type, user name, password, domain
- ❑ Pre-Shared Key, key format (hex or ASCII)
- ❑ Use of either DHCP or Static IP to assign IP addresses
- ❑ Authentication permission restrictions (e.g., domain administrators only)

For a Network Information Form that you can send to your network administrator, go to any of the following:

- Appendix C of this *User's Guide*
- *Docs* folder on the CD

> *If your network only allows domain administrators to authenticate, ask your network administrator to assign you this privilege.*

Obtain Authentication Certificate(s)

- ❑ Ask the network administrator for a copy of the root certificate from a Trusted Root Authority (no intermediary authority) if required. Installation instructions begin on the next page.

> *EAP-TLS only: You also need to set up a cabled connection to the network to install a personal certificate. Installation instructions begin on the next page.*

STEP 2: Install Authentication Certificate(s)

If your network uses PEAP authentication, you need to install only a root certificate. If your network uses EAP-TLS authentication, you need to install both a root and a personal certificate.

Install a Root Certificate

1. If you have not done so already, get a root (server) certificate from your network administrator. The root certificate must come from a Trusted Root Authority (not an intermediary authority).

2. If Socket Go Wi-Fi! is inserted into your Pocket PC, remove it.

3. Use a serial/USB cable or cradle and make an active connection between your Pocket PC and host PC.

   - If your host computer is running Windows Vista, use the Windows Mobile Device Center.

   - If your host computer is running Windows 2000/XP, ActiveSync 4.0 or greater is required.

4. Use My Computer or Windows Explorer to access your Mobile Device and copy the root certificate into your Pocket PC. Remember where you save the certificate.

   Mobile Device

5. On your Pocket PC, use File Explorer to navigate to the file location. Tap on the certificate.

6. A message will ask if you want to install the certificate. Tap Yes.
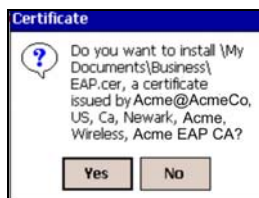
   - If your network uses PEAP, disconnect your Pocket PC from the host PC. Soft reset the Pocket PC by pressing the reset button. Now you are ready for Step 3, preparing the Wi-Fi hardware.

   - If your network uses EAP-TLS, you also need to install a personal (client) certificate.

20

Install a Personal Certificate

1. To install a personal certificate, start Wi-Fi Companion.
   Tap Start | Programs | Wi-Fi Companion.

2. In the main screen of Wi-Fi Companion, tap on
   the keys icon if present. Alternatively, you can
   tap Tools | Certificates | Enroll.

3. Enter the User, Password, and Server provided by
   your network administrator. In the User field,
   enter your domain and user name in the format
   shown, using a backslash ("\") between the
   domain and user name.

   *Note: In the Server field, enter either the name or
   the IP address (using standard dot notation) of
   the server running Certificate Services on your
   network.*
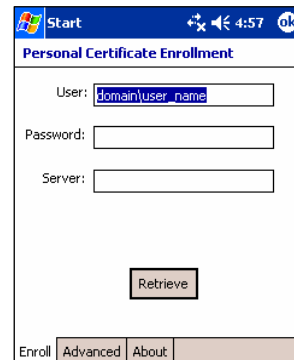
4. Tap Retrieve. After your Pocket PC retrieves a
   personal certificate, tap ok.

5. Disconnect the Pocket PC from the host PC.

STEP 3: Prepare Wi-Fi Hardware

SoMo 650

Turn on the Wi-Fi radio built into the SoMo 650.

1. Press the button on the right side of the SoMo 650. By default, it is programmed to launch the Radio Manager. Alternatively, you can tap on the Wi-Fi icon in the Today screen.

2. In the Radio Manager, enable Wi-Fi. The Wi-Fi button should have a red "x" to indicate that Wi-Fi is disabled. Tap on the Wi-Fi button.

3. The "x" will vanish to indicate that Wi-Fi has been enabled, and the Wi-Fi LED will turn green.

22

Go Wi-Fi!

Insert the card into the card slot of your device. Make sure the card is positioned correctly in the slot. In most cases, it should be right-side up. Do not use excessive force, or damage may occur.
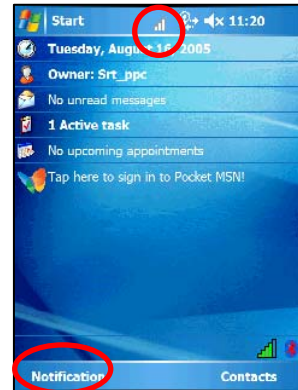

Note: To remove an SD card, press it into the slot. A spring will push the card out. Do not remove the card by simply pulling, or damage may occur.

STEP 4: Start Wi-Fi Companion

1. After you insert the WLAN card or turn on the WLAN radio of your Pocket PC, Wi-Fi Companion will automatically launch, indicated by the Socket status icon at the top of the screen. Tap on the icon. The icon varies depending on your connection status.
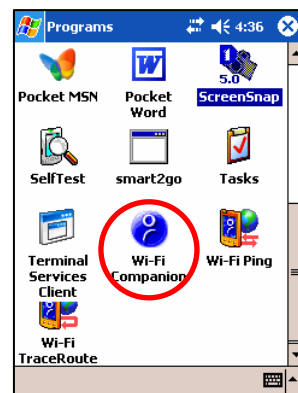
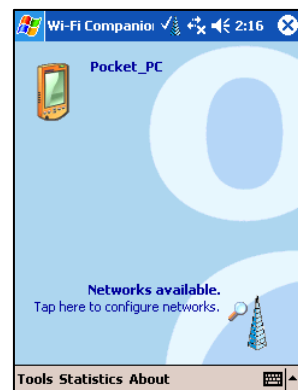   *Socket status icon, search mode.*

    Windows Mobile 5.0: You can also tap **Notification** at the bottom of the Today screen to access the main screen of Wi-Fi Companion.

    Alternatively, you can manually start the program by tapping:

    Start | Programs | Wi-Fi Companion.

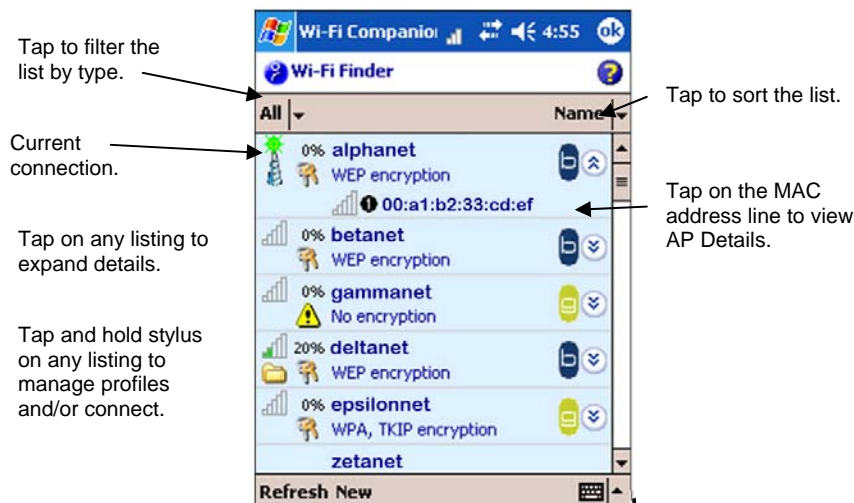2. The main screen of Wi-Fi Companion will appear.

24

STEP 5: Find a WLAN and Create a Profile

1. In the main screen of Wi-Fi Companion, tap on the tower icon, or tap Tools | Wi-Fi Finder.

2. Wi-Fi Finder will list WLANs detected in range. Tap on any WLAN in the list to view additional properties.

Tap to filter the list by type.

Current connection.

Tap on any listing to expand details.

Tap and hold stylus on any listing to manage profiles and/or connect.

Tap to sort the list.

Tap on the MAC address line to view AP Details.

	Signal strength of strongest AP/ad hoc radio		Channel number
	WEP encryption, WPA (PSK), WPA (TKIP) or 802.1x		Profile saved
	No encryption		802.11b, 802.11g

If desired, tap on the Type or Sort by drop-down menus to change how the list is displayed. By default, All types are displayed, sorted by Name.
If your WLAN is not listed, tap Refresh.
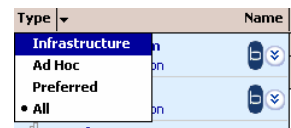
3. If Wi-Fi Finder cannot find your WLAN because its SSID is hidden, tap New to create a new profile for your network.

CHAPTER 4: WPA OR 802.1X   25

4. If your WLAN has a profile (indicated by a folder icon), Wi-Fi Companion may have already connected to it, indicated by a tower icon with a green burst on top.

   To connect to a WLAN with a profile, tap and hold your stylus on the WLAN in the list. In the pop-up menu, tap Connect.

5. If your WLAN does <u>not</u> have a profile (no folder icon), tap and hold your stylus on the WLAN in the list, then tap Get connected to create a profile for the selected SSID.

Creating a WLAN Profile

After you tap New or Get connected in Wi-Fi Finder, you will be directed to Wireless Zero Config (WZC), the wireless connection editor built into Windows Mobile, to create a WLAN profile. For help with WZC, please refer to your Pocket PC manual.

Enter the settings needed to connect to your network. Consult with your network administrator for help. For a Network Information Form you can send to your network administrator, refer to Appendix C.

1. In the Configure Wireless Network screen, enter the Network name (SSID) if it isn't already provided. The SSID is case-sensitive.

   Connects to:
   Select either The Internet or Work.

   Note: In most cases, you should select The Internet. *For a VPN/proxy server, refer to your Pocket PC manual for instructions.*

26
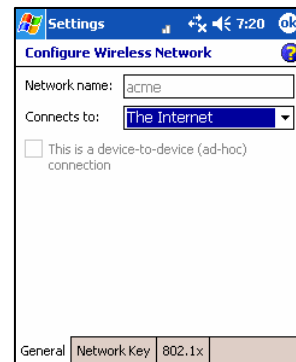
2. Follow the appropriate instructions for your type of network to enter the necessary security settings.

WPA Networks

➢ *Network Key tab*

- **Authentication**: Select the correct WPA type, either **WPA** or **WPA-PSK**.
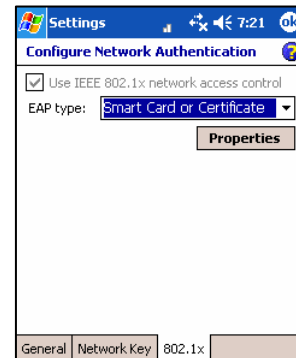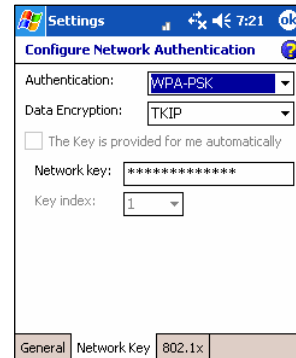
  If using WPA-PSK, also enter the **Network key**. The key length must be either 64 hex or 8-63 ASCII characters.

- **Data Encryption**: Select **TKIP**.

➢ *802.1x tab*

- **Use IEEE 802.1x network access control**: Check.

- **EAP Type**: Select the type of EAP authentication used by your network, either **PEAP** or **Smart Card or Certificate** (EAP-TLS)
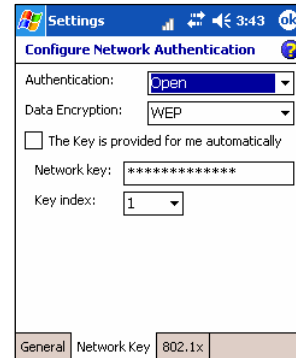
When done, tap **ok**.

802.1x Networks

Depending on your Pocket PC 2003 version, your device may show two or three tabs at the bottom of the screen.

If your device shows three tabs, enter the following settings:

➢ *Network Key tab*
- **Authentication:** Select **Open**.
- **Data Encryption:** Select **WEP**.

T
- **he Key is provided for me automatically:** Check if the key is automatically provided, otherwise uncheck.

➢ *802.1x tab*
- **Use IEEE 802.1x network access control:** Check.
- **EAP Type:** Select the correct EAP type for your network, either **PEAP** or **Smart Card or Certificate** (EAP-TLS)
- When done, tap **ok**.
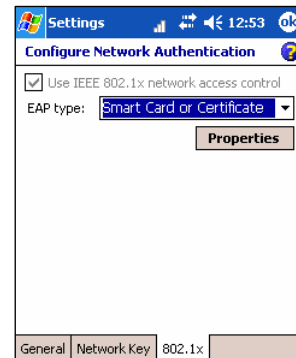
If your device shows two tabs, enter the following settings:

➢ *Authentication tab*
- **Data encryption (WEP Enabled):** Check.
- **Network Authentication (Shared mode):** Uncheck.
- **The key is provided to me automatically:** Check.
- **Enable network access using IEEE 802.1x.** Check. Select the correct **EAP type** for your network.
- When done, tap **ok**.

28
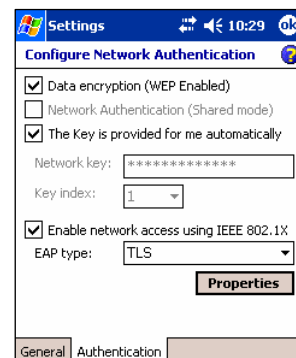
Automatic Connection

1. After you enter the necessary security settings and tap ok, your device will automatically try to connect.

   You may see the Socket status icon at the top of your screen change from "networks available" to "networks out of range but configured."

2. When your Pocket PC has connected, the following will occur: Th

   - e Socket status icon will change to 1-5 bars.

   - The "x" will vanish from the connection icon.

   - In Wi-Fi Finder, the WLAN will appear first in the list, showing a signal tower with a green burst on top.

   Note: After you save a profile for a WLAN, Wi-Fi Companion will automatically try to connect to it whenever you insert the WLAN card.

3. Tap ok to view the main screen of Wi-Fi Companion.

Socket Status Icons

	Associated or Connected. Number of bars indicates signal strength.		Searching for networks.
	Networks available.		Networks out of range but configured.

The screen content varies depending on your connection status.

Socket status icon. Tap to access this screen from outside the utility.

Your device properties.
- Device name
- IP address
- Packets sent and received

The icon always appears regardless of connection status. Tap to view more IP addresses For P300/P500, also tap to turn the radio on/off.

Encryption status. Tap to access a certificate management utility for WPA or 802.1x if needed.

Wi-Fi Companion 4:52

Pocket_PC
DHCP: 216.31.250.160
Packets Sent: 43
Packets Received: 1020

WEP enabled.

11 Mbps

43%

socketcomm
Duration: 00:06:22
Quality: Good
00:a0:f8:39:be:eb

Tools Statistics About

Internet ready. Tap to access email, the Internet, ping or trace route. Icon appears only when Internet access is ready.

Data rate. Tap to view signal strength and data rate distribution.

Access point/remote device properties.
- SSID
- Connection duration
- Signal quality rating and percentage
- MAC address (also known as BSSID)
- Channel number (in black circle)

Tap for Wi-Fi Finder.

30

5 | **Wi-Fi Companion**

This chapter explains how to use the different features of Wi-Fi Companion.

The utility allows you to do the following:
- Turn wireless radio on/off
- View IP addresses
- Find networks
- Enable power save
- Ping
- Trace route
- Enroll a personal certificate for EAP-TLS
- Manage certificates
- View rates
- View graphs
- View tables
- View Help files

Turn Wireless Radio On/Off

You may want to turn off the radio to save power or if you are entering an area with radio restrictions (e.g., on an airplane).

SoMo 650

1. Open the Radio Manager. Press the button on the right side of the SoMo. Alternatively, tap on the Wi-Fi icon in the Today screen.

2. In the Radio Manager, tap Enable flight mode.

3. To turn the radio on again, in Radio Manger tap Disable flight mode.

Go Wi-Fi!

1. In the main screen of Wi-Fi Companion, tap and hold your stylus on the device icon. In the pop-up menu, tap Turn Radio OFF.

2. To turn the radio on again, tap on the device icon again and in the pop-up menu, tap Turn radio ON.

32

View IP Addresses

You can only view IP address data if the WLAN card is actively connected to a WLAN network.

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1. Whenever your device has connected to a WLAN, the main screen of Wi-Fi Companion will display the device's IP address, labeled as either "DHCP" or "static." To view more comprehensive IP address information, do either of the following:

   - Tap on the device icon.

   - Tap Tools | IP Addresses.

2. The IP Addresses screen will appear, reporting Gateway, DNS server, DHCP server, and other IP address assignments.
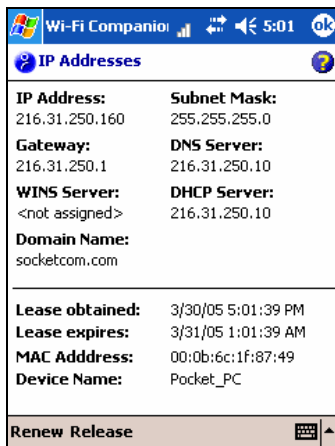
   Note: Lease information appears only if a network uses DHCP.

3. If your network uses DHCP, the Renew and Release functions will be enabled at the bottom of the screen.

   - Renew: Tap to get a new IP address and/or to update related lease data.

   - Release: Tap to release the IP address from the DHCP server.

Find Networks

1. In the Wi-Fi Companion main screen, tap on the signal tower icon. Alternatively, tap Tools | Wi-Fi Finder.

2. The WLAN card will begin searching for networks in range.
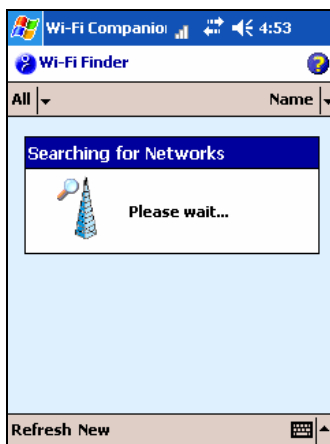
3. After the search, a list of discovered networks will be displayed.
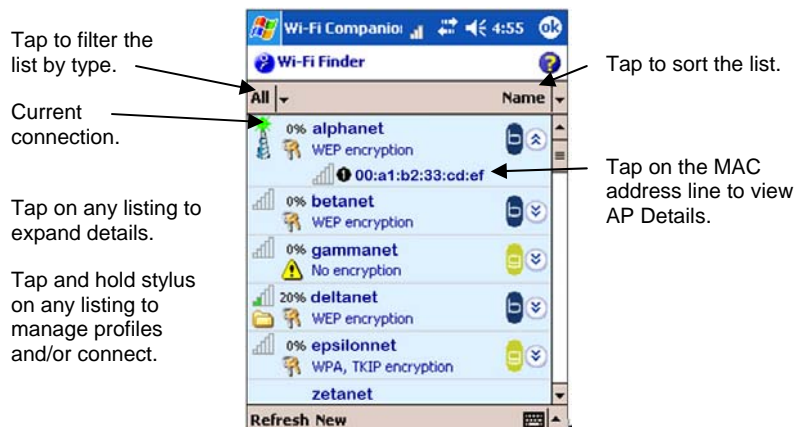
Tap to filter the list by type.

Tap to sort the list.

Current connection.

Tap on any listing to expand details.

Tap and hold stylus on any listing to manage profiles and/or connect.

Tap on the MAC address line to view AP Details.

	Signal strength of strongest AP/ad hoc radio		Channel number
	WEP encryption, WPA (PSK), WPA (TKIP) or 802.1x		Profile saved
	No encryption		802.11b, 802.11g

34

4. If desired, you can perform a variety of functions in the Show Networks screen:

- To begin another search for networks in range, tap Refresh.

- To configure network profiles, tap on a WLAN in the list. In the pop-up menu, tap Get Connected if no profile exists yet, or tap Edit Profile if a profile has already been saved for the WLAN .
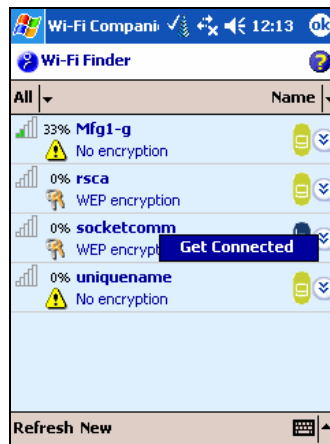
This will direct you to the Configure Wireless Networks screen of Wireless Zero Config.

5. To exit Wi-Fi Finder, tap ok.

Enable Power Save

Wi-Fi Companion offers both automatic and manual power management for the Wi-Fi radio.

1. In the main screen of Wi-Fi Companion, tap Tools | Power save.
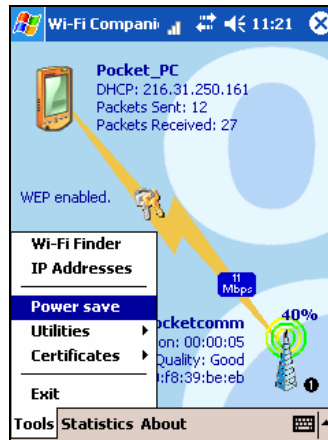
2. The Power Save screen will appear. If desired, check the box Manage the radio power automatically for automatic power management. Wi-Fi Companion will enable best performance when charging and best power savings when running on batteries.
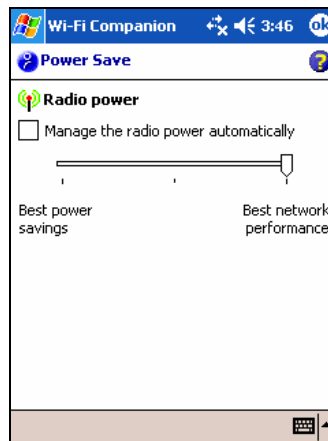
Otherwise, uncheck the box and use the slider to manually choose your power setting.

3. Tap ok.

36

Install Personal Certificate for EAP-TLS

Wi-Fi Companion a quick link to the Cert Enroll utility, which helps you install a personal certificate, required to connect to 802.1x networks running EAP-TLS authentication.

1. In the main screen of Wi-Fi Companion, tap Tools | Certificates | Enroll.
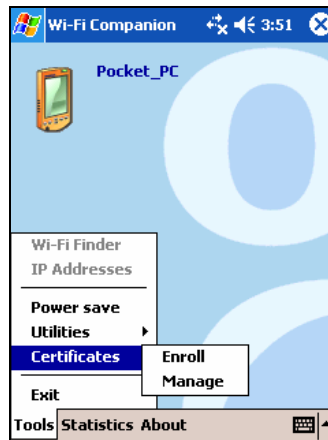
2. The Personal Certificate Enrollment screen will appear. For help using the utility, pleaser refer to Chapter 3.
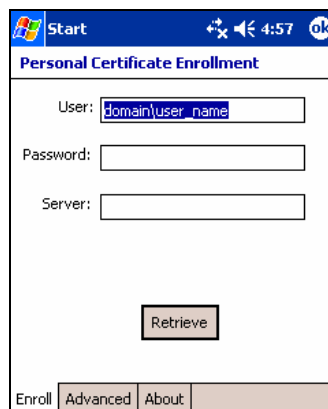
Manage Certificates

Windows Mobile includes a built-in utility for managing authentification certificates for WPA, AES, and 802.1x networks. Wi-Fi Companion provides quick links to the Microsoft certificate management utility.

1. In the main screen of Wi-Fi Companion, you can quickly access the Microsoft certificate management utility by either of two methods:

   - If the card is currently connected to a WLAN, the security status icon will appear as a pair of keys if the correct security settings have been configured, otherwise an error symbol will appear. Tap on the icon.

   - Tap Tools | Certificates | Manage.
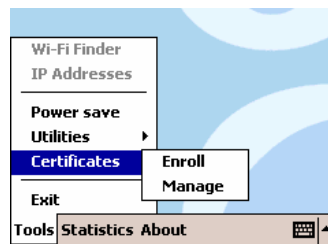
2. The Manage Certificates utility will appear. For help installing certificates for WPA or 802.1x, refer to Chapters 3. For more information about the certificate management utility, refer to your Pocket PC manual.

38

Ping

Use Ping to perform an ICMP ping to another address on the network. Ping is useful as a diagnostic tool to establish Layer 3 connectivity to another network node. In the continuous ping mode, it can also be used as a site survey tool to determine the edge of WLAN range or to look for spots with no coverage (dead spots).

1. In the main screen of Wi-Fi Companion, tap Tools | Utilities | Ping.

2. The Ping screen will appear. Tap Tools | Configure.
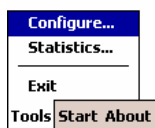
3. In the Configure Ping screen, enter the appropriate settings:
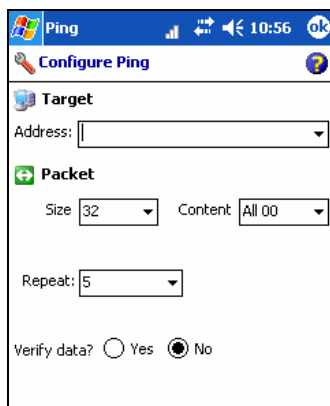
- **Address**: Enter a target address in the form of an IP address or a URL that can be resolved by a Domain Name System (DNS). For convenience, the last address used is the default, and the drop-down list shows prior addresses used.

- **Size**: Select a packet size, from 32 bytes up to 65550.

- **Content**: Select the packet payload data — either All 00, All FF (hexadecimal), or Random.

- **Repeat**: Select a repeat number of pings, from a minimum of 5 to a maximum of Continuous.

- **Verify Data**: Select either Yes or No.

- Tap ok.

CHAPTER 4: WI-FI COMPANION   39

4. The main Ping screen will reappear. Tap **Start**.
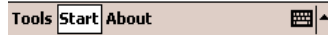
5. The ping test will begin. For each successful ping, the Roundtrip Time (RTT) will be shown. A line graph will display the series of RTTs for the last 24 pings.
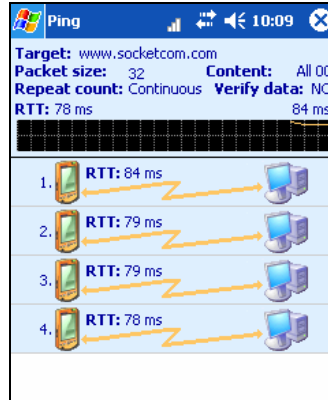
If a ping is not successful within 2 seconds, a timeout will be displayed.
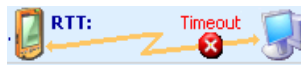
6. To stop the test, tap **Stop**. A prompt will report statistics of the test results. View the statistics and tap **ok**.

To view the statistics again, tap **Tools** | **Statistics**.

40
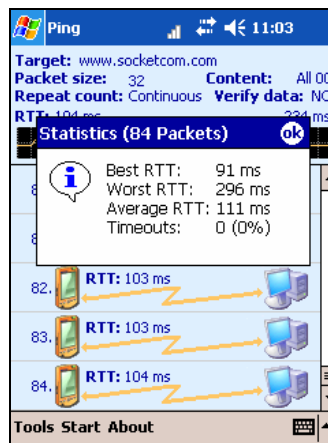
Trace Route

The Trace Route tool traces a packet from the Pocket PC to an Internet host, showing each hop and how long it takes to reach the destination. This allows the user to figure out where the longest delays are occurring if performance appears slow.

1. In the main screen of Wi-Fi Companion, tap Tools | Utilities | Trace Route.

2. The Trace Route screen will appear. Tap Tools | Configure.

3. In the Configure Trace Route screen, enter the appropriate settings:
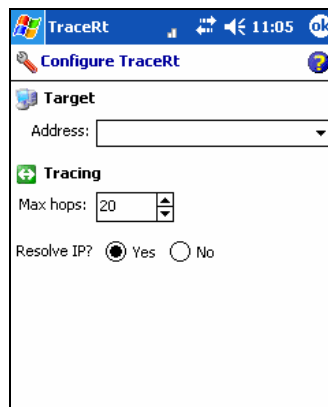
- **Address**: Enter a target address in the form of an IP address or a URL that can be resolved by a Domain Name System (DNS). For convenience, the last address used is the default, and the drop-down list shows prior addresses used.

- **Max hops**: Select the maximum number of hops (default is 20).

- **Resolve IP**: Indicate whether you want to resolve the IP address from a URL (default is Yes).

- Tap ok.

4. In the main Trace Route screen, tap Start.

5. The Trace Route test will begin. For each successful hop, the hop time, host name and IP address are shown. Tap **Stop** to stop the trace at any time, or let the trace run until it is complete.

6. When the trace is complete, the Statistics dialog box will report the best hop, worst hop, average hop, and number of timeouts. Tap **ok** to close the box.

To view the statistics again, tap **Tools | Statistics**.

To view the full host name for any of the hops, simply tap on the hop in the list.

42
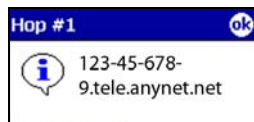
View Rates

Note: You can only view statistical rate information if the WLAN card is actively connected to a WLAN network.

1. Whenever your device has connected to a WLAN, the main screen of Wi-Fi Companion will display the connection's data rate. To view more comprehensive data rate information, do either of the following:

   • Tap on the data rate icon.

   • Tap Statistics | Rates.
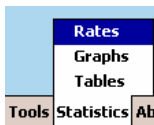
2. The Rates screen will appear, reporting the current signal strength, signal quality, and a history of the relative number of packets sent at the 12 possible 802.11b/g connection speeds. Additionally, the screen shows the current BSSID and connection duration.
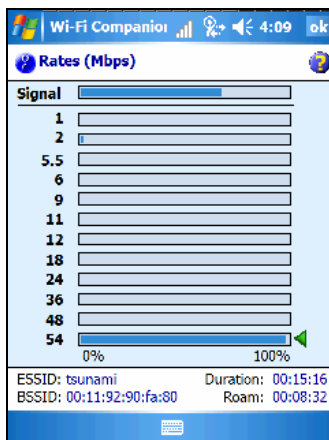
   The green arrow indicates the current network speed.

3. By default, the Pocket PC will refresh the rate information every second. To configure the refresh rate to something different, tap Configure at the bottom of the screen.

View Graphs

You can only view the statistical graphs if the WLAN card is actively connected to a WLAN network.

1. In the main screen of Wi-Fi Companion, tap Statistics | Graphs.
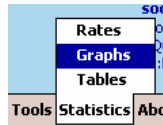
2. The Graphs screen will appear, displaying scrolling line graphs of the signal quality, rate, and sent and received data rates.

    Note: Square screen devices will only show the signal quality and sent and received data rates.
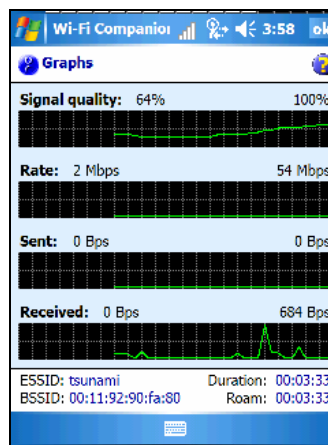
    Two numbers are reported with each graph: the current value (displayed on the left side, after the graph title) and the maximum value (displayed on the far right). For the Sent and Received graphs, the maximum value may change.

3. By default, the Pocket PC will refresh the graph information every second. To configure the refresh rate to something different, tap Configure at the bottom of the screen.

44

View Tables

You can only view the statistical tables if the WLAN card is actively connected to a WLAN network.

1. In the main screen of Wi-Fi Companion, tap Statistics | Tables.
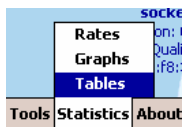
2. The Tables screen will appear, displaying a table of comprehensive information about the current connection.

   The table is divided into five screens: IP, TCP, UDP, ICMP, and Interface. Almost all of the information presented in the tables relates to performance and error counts.

   Tap on a column header to sort the data.

   Reset: Tap to reset the contents of the Current column to zero.

   Refresh: Tap to refresh the data of the open table. By default, the data will refresh every time you open a new table (e.g., when you switch between the different tabs).

View Help Files

There are two ways to access Help files for Wi-Fi Companion.

- To view a list of all the Help files, make sure Wi-Fi Companion is running and tap Start | Help.

- To view a Help file for the screen of Wi-Fi Companion that is currently open, tap on the Help button . Except for the main screen, all screens of Wi-Fi Companion feature a Help button.

46
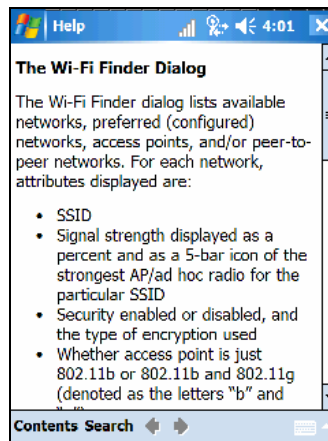
Appendix A
Specifications

Go Wi-Fi! E300 (802.11b SD card)

Physical Characteristics:
   Card Dimensions: 1.57 x 0.94 x 0.08 in (40 x 24 x 2.1 mm)
   Total Weight: 0.1 oz (4 g)
   Operating Temperature: +14 to +158 °F (0 to +70 °C)
   Storage Temperature: -22 to +176 °F (-30 to +80 °C)

Power Consumption (3.3 V Supply):
   Transmission: 187 mA
   Receive: 146 mA
   Power-Saving Idle (listening): 15.8 mA
   Power-Saving Sleep: 0.92 mA

Hardware Support:
- Windows Mobile 5.0 with SDIO slot
- Windows Mobile 2003/2003SE with SDIO slot and SDIO *Now!* software from BSQUARE in ROM
- For information about support for MontaVista Linux and Real-Time Operating Systems (RTOS), please submit an online inquiry to Socket OEM group at www.socketmobile.com/contact/

Compatible Processors:
- Intel XScale
- Samsung MIPS
- Texas Instruments OMAP

Interface Standards: SDIO

Standards Conformance:
Wi-Fi Certified — Enterprise Edition
Meets 802.1x requirements
SDIO 1.1

Transmit Power Output: 32 mW nominal, 40 mW maximum

Receiver Sensitivity:
   1 Mbps: -91 dBm
   11 Mbps: -83 dBm

Data Rate:
Complies with 802.11b specification to provide data rates up to
11 Mbps, with range and throughput optimized by Dynamic
Rate Scaling to 5.5, 2, and 1 Mbps

Frequency Range: 2.4-2.5 GHz band

Range:
   Indoors: Approx. 300 feet (100 m) (typical office environment)
   Outdoors: Approx. 1,000 feet (300 m)

Access Protocol: Carrier Sense Multiple Access with Collision
Avoidance Protocol (CSMA/CA)

Security Encryption/Authentication Hardware Support:
   40/64-bit and 128-bit WEP data encryption
   802.1x with EAP-TLS or PEAP
   Wi-Fi Protected Access (WPA), WPA with Pre-Shared Key
   (WPA-PSK)

Software Included: Socket WLAN CD

Hardware Warranty: One year

Certification/Compliance:
   FCC: Part 15, subpart C
   Industry Canada RSS210
   Europe: CE Mark, R&TTE Directive
   Australia: C-Tick

Go Wi-Fi! E500 (802.11b CF card)

Physical Characteristics:
CF Type I Size: 56.6 x 42.8 x 3.3 mm
Total Weight: 13.6 g
Operating Temperature: 32 to 158 °F (0 to 70 °C)
Storage Temperature: +5 to 185 °F (-15 to +85 °C)

Power Consumption (3.3 V Supply):
Idle (listening): <20 mA
Transmission: 265 mA

Interface Standards:
CompactFlash Interface: CompactFlash Type I
With CompactFlash-to-PC Card Adapter: PCMCIA, Type II

Standards Conformance:
Wi-Fi Certified — Enterprise Edition
Meets 802.1x requirements
CompactFlash Spec. 2.0

Output Power: 40 mW maximum

Data Rate: Complies with 802.11b specification to provide data rates up to 11 Mbps, with range and throughput optimized by Dynamic Rate Scaling to 5.5, 2, and 1 Mbps

Frequency Range: U.S., Europe, and Japan product covering 2.4-2.5 GHz, programmable for different country regulations

Range: Approx. 300 feet (100 m) (typical office environment)

Access Protocol: Carrier Sense Multiple Access with Collision Avoidance Protocol (CSMA/CA)

Security Encryption/Authentication Hardware Support:
40-bit and 128-bit WEP data encryption
802.1x with EAP-TLS or PEAP
Wi-Fi Protected Access (WPA), WPA-PSK (Pre-Shared Key)

Operating System Support:
Windows Mobile 2003, 2003SE and 5.0

Software Included: Installation CD

Warranty: **CompactFlash Card:** One year

Certification/Compliance:
  FCC: Part 15, subpart C
  ETS 300 328
  ETS 300 826

TX Maximum Radiated EIRP:
  U.S.: FCC Part 15.247
  Europe: ETS 300 328
  Canada: IC RSS210

TX Out-of-Band Emissions:
  U.S.: FCC Part 15.247, 15.205, 15.209
  Europe: ETS 300 328

Go Wi-Fi! P300/P300x (802.11b/g SD card)

Physical Characteristics:
   Card Dimensions: 1.57 x 0.94 x 0.08 in (40 x 24 x 2.1 mm)
   Total Weight: 226.8 g
   Operating Temperature: +32 to +158 °F (0 to +70 °C)
   Storage Temperature: +5 to +185 °F (-20 to +85 °C)

Power Consumption (3.3 V Supply):
   Idle: <20 mA (estimated)
   Transmission: 265 mA (peak)

Hardware Support:
   - Windows Mobile 5.0 with SDIO slot
   - Windows Mobile 2003/2003SE with SDIO slot and SDIO *Now!* software from BSQUARE in ROM
   - For information about support for MontaVista Linux and Real-Time Operating Systems (RTOS), please submit an online inquiry to Socket Development Services at www.socketmobile.com/contact/

Interface Standards: SDIO 1.1 or greater

Standards Conformance:
Wi-Fi Certified — Enterprise Edition
Meets 802.1x requirements
WPA-2 Enterprise (certification pending)
CCX v1/v2
IEEE 802.11b and 802.11g

Transmit Power Output:
   CCK: 13 dBm (typical)
   OFDM: 15 dBm (typical)

Tx Maximum Radiated:
   CCK: 15 dBm (estimated)
   EIRP: 15 dBm (estimated)

Data Rate:
802.11g: Data rate dynamically shifts between 54, 48, 36, 24, 18, 12, 9 and 6 Mbps based on signal strength, for maximum availability and reliability of connection. OFDM with BPSK, QPSK, 16-QAM and 54-QAM (at 6/9, 12/18, 24/36, and 48/54 Mbps, respectively)

802.11b: Data rate dynamically shifts between 11, 5, 5M, 2M, and 1 Mbps based on signal strength, for maximum availability

and reliability of connection. (802.11g: DSSS with BPSK, QPSK, and CCK (at 1,2, and 5.5/11 Mbps, respectively)

Frequency Range:
  North America: 2.412-2.462 GHz, channels 1-11
  Europe ETSI: 2.412-2.472 GHz, channels 1-13
  Japan: 2.412-2.484 GHz, channels 1-14

Indoor Range: Approx. 300 ft (100 m) (typical office environment)

Access Protocol: Carrier Sense Multiple Access with Collision Avoidance Protocol (CSMA/CA)

Security Encryption/Authentication Hardware Support:
  40/64-bit and 128-bit WEP data encryption
  802.1x with EAP-TLS or PEAP
  Wi-Fi Protected Access (WPA), WPA with Pre-Shared Key
  (WPA-PSK)
  AES, WPA2

Software Included: Socket WLAN CD

Hardware Warranty: One year

Certification/Compliance:
  FCC: Part 15, Subpart C
  Industry Canada RSS210
  Europe: CE: EN 300 328, EN 301 489-17
  TELEC: pending

Go Wi-Fi! P500/P500x (802.11b/g CF card)

Physical Characteristics:
CF Type I Size: 56.1 x 42.8 x 3.3 mm)
Total Weight: 13.6 g
Operating Temperature: 32 to 158 °F (0 to 70 °C)
Storage Temperature: +5 to 185 °F (-20 to +85 °C)

Power Consumption (3.3 V Supply):
Idle: <20 mA (estimated)
Transmission: 265 mA (peak)

Transmit Power:
CCK: 13 dBm typical
OFDM: 15 dBm typical

Interface Standards:
CompactFlash Interface: CompactFlash Type I
With CompactFlash-to-PC Card Adapter: PCMCIA, Type II

Standards Conformance:
Wi-Fi Certified — Enterprise Edition
Meets 802.1x requirements
WPA2-Enterprise (certification pending)
CCX v1/v2 (certification pending)
IEEE 802.11b and 802.11g
CompactFlash Spec. 2.0

802.11g: Data rate dynamically shifts between 54, 48, 36, 24, 18, 12, 9 and 6 Mbps based on signal strength, for maximum availability and reliability of connection. OFDM with BPSK, QPSK, and CCK (at 1, 2, and 5/11 Mbps, respectively)

802.11b: Data rate dynamically shifts between 11, 5, 2, and 1 Mbps based on signal strength, for maximum availability and reliability of connection. DSSS with BPSK, QPSK, 16-QAM and 54-QAM (at 6/9, 12/18, 24/36, and 48/54 Mbps, respectively)

Frequency Range:
North America: 2.412-2.462 GHz, channels 1-11
Europe ETSI: 2.412-2.472 GHz, channels 1-13
Japan: 2.412-2.484 GHz, channels 1-14
Programmable for different country regulations

Indoor Range: Approx. 300 feet (100 m) (typical office environment)

Access Protocol: Carrier Sense Multiple Access with Collision Avoidance Protocol (CSMA/CA)

Operating System Support:
Windows Mobile 2003, 2003SE and 5.0

For information about support for MontaVista Linux, Real Time Operating Systems (RTOS), Linux 2.4/2.6, uITRON or ThreadX, please submit an online inquiry to Socket Development Services at:
www.socketmobile.com/contact/

Software Compatibility: Windows COM port

Software Included: Installation CD

Warranty: **CompactFlash Card:** One year

Certification/Compliance:
   FCC: Part 15, subpart C
   CE: EN 300 328, EN 301 489-17
   Industry Canada: RSS210
   Telec

TX Maximum Radiated EIRP:
   CCK: 15 dBm (estimated)
   OFDM: 17 dBm (estimated)

Appendix B
Safety and Usage Tips

Please observe these Safety and Usage Tips while using Socket Go Wi-Fi!

Product Care
- Do not expose this product to liquid, moisture or extreme humidity.
- Do not expose this product to extreme high or low temperatures.
- Do not drop, throw or try to bend this product, as rough treatment could damage it.
- Do not attempt to disassemble this product - a broken seal will void the warranty. The product does not contain consumer serviceable components. Should your Go Wi-Fi! need service, please contact Socket technical support at: www.socketmobile.com/support/support/new. After registering your product, log in, click on the Technical Support tab, and click Create New Ticket.
- Treat this product with care. Keep in a clean, dry and dust-free place.
- Changes or modifications of this product, not expressly approved by Socket, may void the user's authority to operate the equipment.

Antenna Care
Do not place a metallic shield around your Go Wi-Fi! card since it will reduce the radio transmission efficiency.

Efficient Use
For optimum performance, please make sure that there is no metallic surrounding your Go Wi-Fi! card.

Driving
RF energy may affect some electronic systems in motor vehicles, such as car stereo, safety equipment, etc. Check with your vehicle manufacturer's representative to be sure that your Go Wi-Fi! card will not affect the electronic system in your vehicle.

Aircraft
- Turn off the Go Wi-Fi! before boarding any aircraft.
- To prevent interference with communications systems, you must not use your Go Wi-Fi card while the plane is in the air.
- Do not use it on the ground without permission from the crew.

Radio Frequency Exposure

Your Go Wi-Fi! is a radio transmitter and receiver. When in operation, it communicates with 802.11b-equipped devices by receiving and transmitting radio frequency (RF) magnetic fields in the frequency range 2.4 to 2.5 GHz. The maximum output power of the radio transmitter is less than 75 mW.

The Go Wi-Fi! unit is designed to be in compliance with the RF exposure limits set by national authorities and international health agencies when installed or used separately from other antennas or radio transmitters.

Operation of this device excludes body-worn holsters, belt clips, or similar operating configurations, as described in the FCC filing.

Appendix C
Network Information

Consult with your network administrator, or have them complete this form.

1. What is the network's wireless network name, known as SSID?

   _____

   Note: The name is case-sensitive, maximum length 32 characters.

2. What type of security does your WLAN use? Check one of the boxes A-F below.

   A ☐ Open System   (no settings needed, proceed to Question 4)
   B ☐ WEP-40
   C ☐ WEP-128
   D ☐ WPA-PSK
   E ☐ WEP-PEAP
   F ☐ WEP-EAP/TLS

3. If you checked B, C, D, E or F, please provide the necessary settings.

   [B] What is the WEP-40 key?

   40-bit (10 characters): _ _ _ _ _ _ _ _ _ _

   [C] What is the WEP-128 key? What is the key index?

   128-bit (26 characters):

   _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

   Key index: 1, 2, 3 or 4

   [D] What is the WPA-PSK key? What is the key format?

   Key: _____

   Key Format:
   ☐ Hexadecimal.   Key length must be 64 characters.

   ☐ ASCII.   Key length must be 8-63 characters.

[E-F] <u>802.1x Authentication only</u>

IMPORTANT! Get the required authentication certificate(s) from your network administrator!

Specify the following 802.1x settings:

WEP key: ☐ The WEP key is provided automatically

☐ I must enter the WEP key and key index

WEP Key: _____

Key index: 1, 2, 3 or 4

Authentication: ☐ EAP-TLS *May appear as "Smart Card or Certificate" in configuration menu.*

☐ PEAP

User name: _____Server:_____
(network login)   (certificate server)

Password: _____ Domain: _____

4. Does the network require that you use a static IP address?

☐ **NO**. If *No*, then you do not need any of the settings below.

☐ **YES**. If *Yes*, then please specify the following:

(a) Mobile Computer IP address: _____ . _____ . _____ . _____

(b) Subnet Mask: _____ . _____ . _____ . _____

(c) Gateway: _____ . _____ . _____ . _____

(d) DNS: _____ . _____ . _____ . _____

(e) WINS*: _____ . _____ . _____ . _____

*<u>For Remote ActiveSync Only</u>: If your server does NOT have use WINS services, use the IP address of the host PC instead of a WINS address.

58 | APPENDIX C: NETWORK INFORMATION

Appendix D
Troubleshooting

SYMPTOM: *My device does not recognize the card after I insert it.*

POSSIBLE REASONS	SOLUTION
The card driver was not installed or installed incorrectly.	Install the software properly.

SYMPTOM: *The Socket status icon doesn't appear after I insert the card into my Pocket PC.*

POSSIBLE REASONS	SOLUTION
Your mobile computer may be frozen.	Remove the WLAN Card. Soft reset the device by pressing the reset button.
The WLAN card may not be properly aligned in the card slot.	Remove and carefully re-insert the card in the slot.

SYMPTOM: *My device is not receiving a valid IP address.*

POSSIBLE REASONS	SOLUTION
The DHCP request was not successful in receiving an IP address	Remove and reinsert the card or soft reset the mobile computer.
The SSID may be incorrect.	Check and re-enter the SSID. It is case-sensitive. Alternatively, try using an SSID of "any".
In Infrastructure operating mode, WEP encryption may not match access point settings.	Check with your company IT department to confirm access point security settings.

SYMPTOM: *My device does not associate with an access point known to be within range.*

POSSIBLE REASONS	SOLUTION
The SSID may be incorrect.	Check and re-enter the SSID. Try using an SSID of "any".
In Infrastructure operating mode, WEP encryption may not match access point settings.	Check with your company IT department to confirm access point security settings.
AP may require short preamble.	Change access point to long preamble.

Appendix E
Technical Support

If you have trouble using the WLAN software, tap Start | Help to view Help files. For Wi-Fi Companion, you can also tap the Help button 🔵 for information about the open screen.

If you need further assistance with Wi-Fi Companion or the Go Wi-Fi! card, Socket has two technical support resources to help you. Please note that support is available only in English.

Socket On-Line Support
Socket On-Line Support (SOS) is a comprehensive knowledge database and the best place to start for technical support. No registration is required. To access SOS, please visit: www.socketmobile.com/support/faq.

Technical Support

IMPORTANT!
To obtain technical support, you must first register your product online at www.socketmobile.com/support/support/new.

After product registration, log in. Click on the Technical Support tab. Click Create New Ticket to submit an online inquiry for technical support. You can log in anytime to track the progress of your request. If we cannot resolve your inquiry online, we can arrange for a support engineer to call you at a specific time.

802.1x only: If you have trouble connecting to an 802.1x network, ask your network administrator for the event log and access point log, if supported. Send the log(s) to Socket technical support with your request for help..

60 | APPENDIX E: TECHNICAL SUPPORT

Limited Warranty

Socket Communications Incorporated (Socket) warrants this product against defects in material and workmanship, under normal use and service, for one (1) year from the date of purchase.

Incompatibility is not a defect covered by Socket's warranty. During the warranty period, Socket will, at its option, repair or replace the defective product at no charge when furnished with proof of retail purchase, provided that you deliver the product to Socket or to an authorized Socket Service Center.

The returned product must be accompanied by a return material authorization (RMA) number issued by Socket or by Socket's Authorized Service Center. If you ship the product, you must use the original container or equivalent and you must pay the shipping charges to Socket. Socket will pay surface shipping charges back to any location in the contiguous United States. This warranty applies only to the original retail purchaser and is not transferable.

Socket may, at its option, replace or repair the product with new or reconditioned parts and the returned product becomes Socket's property. Socket warrants the repaired or replaced products to be free from defects in material or workmanship for ninety (90) days after the return shipping date, or for the remainder of the original warranty period, whichever is greater.

This warranty does not cover the replacement of products damaged by abuse, accident, misuse or misapplication, nor as a result of service or modification other than by Socket.

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This product may contain fully tested, recycled parts, warranted as if new.

For warranty information, please visit: www.socketmobile.com/support

61

Limited Software Warranty

LIMITED WARRANTY. SOCKET warrants that the original disk or CD ROM is free from defects for 90 days from the date of delivery of the SOFTWARE.

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62

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Regulatory Compliance for Go Wi-Fi!

Socket Go Wi-Fi! is designed to be compliant with the rules and regulations in locations where they are sold and will be labeled as required. This product is type approved users are not required to obtain license or authorization before using.

Radio Frequency Interference Requirements

This device complies with part 15 of the FCC rules. Operation is subject to the following 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: Changes or modifications to the device not expressly approved by Socket Communications can void the user's authority to operate the equipment.

This equipment is also ETS 300 328 and ETS 300 826 compliant. 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 or her own expense.

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 may try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the radio or television.
- Increase the distance separating the equipment and the receiver.
- Connect the equipment to an outlet on a different branch circuit than that of the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

The user may find the following booklet helpful:

How to Identify and Resolve Radio-TV Interference Problems

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402.

64

Antenna Co-location Instructions

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Radio Frequency Interference Requirements – Canada

This Class B digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la Classe B respecte toutes les exigencies du Reglement sur le Matériel Brouilleur du Canada.

NOTE: This device has been tested and complies with FCC, CE and IC radio-frequency (RF) exposure limits for body-worn operation. SAR compliance for body-worn operation has been established for PDA configurations with a CompactFlash slot and a 1.0 cm minimum separation distance between the WLAN Card and the user's body. In order to comply with FCC, CE and IC RF exposure requirements for body-worn operation, this device must be used with a PDA utilizing a body-worn accessory that contains no metallic components and maintains a minimum separation distance of 1.0 cm between the WLAN Card and the user's body. This device has not been evaluated for RF exposure compliance with any Smartphone or PDA with built-in phone capability that enables use of this device to be held and transmitting next to the head. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

CE Marking & European Union Compliance

Products intended for sale within the European Union are marked with a CEMark which indicates compliance to applicable Directives and European Normes (EN), as follows. Amendments to these Directives or ENs are included: Normes (EN), as follows:

Applicable Directives:
* Electromagnetic Compatibility Directive 89/336/EEC
* Low Voltage Directive 73/23/EEC

Applicable Standards:
* EN 300 328 v1.6.1 2004-11 Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
* EN 301 489-17 v1.2.1 2002-08 Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC)

65

standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

- EN 301 489-17 v1.11 (2000-09) Specified Conditions for Wideband Data and HIPERLAN Equipment
- EN61000-4-2: 1995 – Electrostatic Discharge
- EN61000-4-3: 1996 – Radiated Electromagnetic Field
- ANSI C95.1 Safety Levels with Respect to Human Exposure to RF Electromagnetic Fields 300 KHz to 300 GHz

Product Disposal

Your device should not be placed in municipal waste. Please check local regulations for disposal of electronic products.

66

5/2007   Printed in U.S.A.

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