Wasp WPA 1000II





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Battery Notices

The WPA 1000II is equipped with a Lithium-Ion battery pack and backup battery. Both batteries will discharge after an extended period of not being used.

When both batteries are discharged, recharge the unit for 4.5 hours in order to fully charge the main battery and backup battery. Recharge the WPA 1000II through the following:

- 1. Plug the USB charging cable to the WPA 1000II and plug the 5V/3A AC-DC adapter to the power jack of the USB charging cable.
- 2. Place the WPA 1000II into the docking station and plug the 5V/3A AC-DC adapter to the power jack of the docking station.

If the main battery is removed, the backup battery ensures the data on SDRAM is safe for up to 2 hours. To prevent data loss, do not leave the WPA 1000II uncharged with the main battery removed for an extended period. For more details, refer to the section titled *Charging the Battery*.

Note: Rechargeable batteries should be replaced every year or when 500 charge/discharge cycles have been completed. Replacing the batteries guarantees optimal performance. Batteries may expand after one year and/or 500 cycles. Although this is not dangerous, the battery is no longer usable and must be disposed of according standard battery disposal procedures.

If performance decrease is greater than 20% in a Lithium-Ion battery, the battery is at the end of its life cycle. Discontinue use, and dispose of the battery properly.

Battery power longevity depends on the battery type and how the device is used. Conserve the battery life through the following:

- Avoid frequently depleting the battery charge. This can place additional strain
 on the battery. Several partial discharges with frequent recharges are better than
 a deep one. Recharging a partially charged lithium-lon battery does not damage
 the battery.
- Keep the lithium-Ion battery cool. Avoid a hot car. For prolonged storage, keep the battery at a 40% charge level.
- Do not leave the lithium-lon battery discharged and unused for an extended period because the battery will wear out quickly.

Battery charge notice

It is important to consider the environment and temperature when charging your battery. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0°C to 40°C (32°F - 104°F). Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

CAUTION! Do not charge batteries at a temperature lower than 0°C (32°F). Please use a battery temperature-detecting device with your charger to ensure a safe charging temperature range. The battery is equipped with thermal protection to protect it from swelling. This prevents if from charging if the temperature of the battery is over Further, to protect the battery from swelling, the battery is detected for thermal protection and will not be charged when the temperature of battery is over 120 °F.

Storage and safety notice

Although charged Lithium-Ion batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens they will require recharging prior to use. Lithium-Ion batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at the higher temperature ranges. It is recommended to store batteries within normal room temperature ranges.

Warranty

The following items are covered under the Wasp Limited Warranty if free from defects during normal use:

- WPA 1000II 1-year limited warranty.
- Lithium-Ion battery 6-month limited warranty.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.

Use only the adapter supplied. Using the wrong adapter may damage the unit and will void the warranty.

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Chapter 1 - Getting Started

1.1 Introducing the WPA 1000II

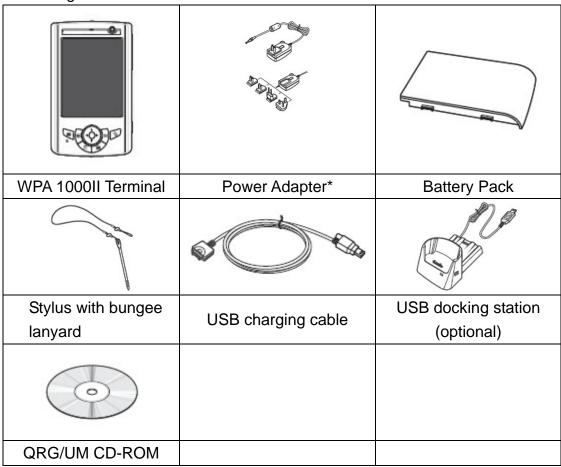
Thank you for purchasing the WPA 1000II Mobile Computer. Your WPA 1000II was designed for users who need a compact and durable portable computer for data collection and real time transactions. The WPA 1000II Mobile Computer is a compact mobile computing device designed for maximum durability.

Easy to Use

The unit is equipped with a color display with touch screen, a five-way directional key, and six application keys. The WPA 1000II supports integrated long range scanners for fast and accurate data collection. The device also supports infrared interface, Bluetooth, and wireless communication capability for exchanging information in a computing communication system.

1.2 WPA 1000II Product Introduction & Accessory Kit

The following accessories are included with the WPA 1000II:



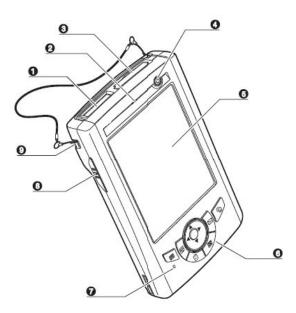
^{*} Replaceable clip plugs are available, depending on the region.

If anything is missing or appears damaged, contact your dealer.

1.3 Tour of the WPA 1000II

The following section describe the main components and features of the WPA 1000II.

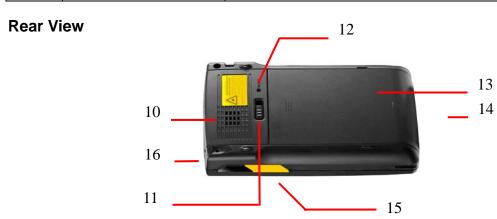
Front View



No.	Component	Description
4	Barcode laser scanner	Reads and captures information on a barcode label.
1	(optional)	
		Indicates the battery charging and barcode scanning
		status.
2	Status indicator	Green - Battery is fully charged, the device is running on
	Status indicator	battery power, or barcode scanning
		Red – Battery is being charged and barcode scanner is
		fired/activated.
		Accepts an SD (Secure Digital), MMC (Multimedia Card)
		or SDIO (Secure Digital Input Output) cards, allowing you
3	SDIO/MMC slot	to add more memory.
3	SDIO/IVIIVIC SIOI	Install add-on applications or use audio text files stored in
		it for use with internal applications. You can also use it to
		backup data from your device.
		Press this button to turn on the device.
4	Power button	Press this button approximately 2 seconds to turn the
		device off.

E	LCD touch screen	Displays the applications and data stored on your device.
5	LCD touch screen	It is touch-sensitive and responds to the stylus or finger.

6	Keypad	Includes a software keyboard button, navigation key and application buttons to launch Microsoft Outlook Mobile programs.
7	(Reserved)	
8	Left scanner trigger key	Press to activate the barcode laser scanner.
9	Cord holder	Eyelet for holding the elastic bungee lanyard.



No.	Component	Description
10	Speaker	When the speaker is active, sounds are emitted here.
11	Pottory rologgo lotob	Slide toward the right side of the device and hold firmly,
11	Battery release latch	then detach the battery from its bay.
12	Reset button	Press the end of the stylus into the button to reset your
12	Reset button	device.
13	Main battery	Removable and rechargeable 3.7 V, 2200 mAh battery pack.
		Connects your device to a USB charging/communication
		cable. This USB cable connects to the computer's USB
		port and accepts the 5V AC adapter to provide power to
		the WPA 1000II.
		The unit can simultaneously recharge and perform an
14	Universal connector	ActiveSync operation. You can also use it to connect
		peripheral hardware, such as a docking station, to your
		device.
		This port can also support USB and RS232 hosting for
		devices such as a USB or RS232 scanner, keyboard, or
		USB memory key.
15	Right scanner trigger key	Press to activate the barcode laser scanner.
16	Stylus	To use the stylus, remove it from its holder and hold it the
10	Otylus	same way as you hold a pen or pencil.

1.4 Setting up the WPA 1000II

Perform the following set up tasks to begin using your device:

- Install the battery pack.
- Charge your device.
- Power on the WPA 1000II.

1.4.1 Installing the Battery

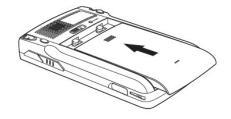
WARNING! There is a risk of fire and burns if the battery pack is handled improperly.

DO NOT disassemble, crush, puncture, short external contacts, or dispose of the battery pack in fire or water. DO NOT attempt to open or service the battery pack. Dispose of used batteries according to the local recycling guidelines in your area.

A backup battery cell is embedded into your device to prevent data loss when the removable battery pack is removed or completely discharged. The backup battery will keep the data and system settings up to 1 hour if the main battery is removed.

NOTE: To enable the internal battery cell to provide backup power supply, charge your device with the main battery pack for at least three and a half hours.

- 1. Position the battery pack, making sure the battery pack fits the shape of the battery compartment.
- 2. Slide the battery pack into the battery bay. The battery pack locks to the chassis with an audible click.



- 3. If you remove the main battery and plug it back in before the backup battery lost power, WPA 1000II will warm start.
- 4. If you remove the main battery and plug it back after the backup battery lost power, WPA 1000II will clean boot.

1.4.2 Charging the WPA 1000II

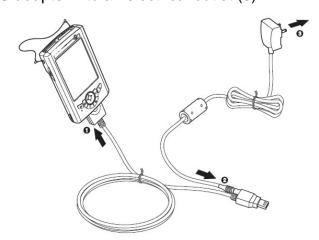
For initial use, you need to charge your device for about 16 hours. After that, you can charge it everyday to recharge the battery to full capacity. You can charge your device using the USB charging cable or the docking station.

CAUTION! Operating the WPA 1000II for the first time without the AC adapter, and without fully charging the backup battery may result in loss of data stored in RAM memory.

NOTE: Data you entered may not be properly stored until the internal backup battery has been fully charged.

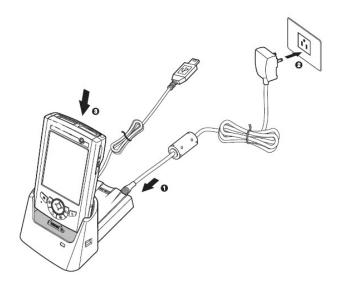
To charge the device using the USB charging cable:

- 1. Attach the clip plug to the AC adapter, if necessary. Slide the replaceable clip plug into the AC adapter until it locks into place with an audible click.
- 2. Press and hold the connector button on the USB charging cable and connect it to the WPA 1000II (1).
- 3. Plug the AC adapter cable into the power jack on the USB charging cable (2).
- 4. Connect the AC adapter into an electrical outlet (3).



To charge the device using the docking station:

- 1. Plug the AC adapter cable into the power jack on the docking station.
- 2. Plug the AC adapter into an electrical outlet.
- 3. Slide the device into the docking station until it clicks into place.



The connection is secure when the bottom edge of the device is aligned smoothly with the docking station, and the LED indicator on the docking station and device lights up red.

LED status during charging:

- Solid red: Charging

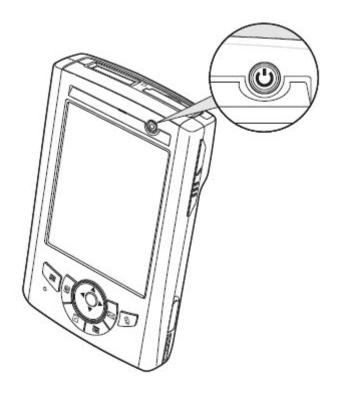
Solid green: Charging complete

If the battery level becomes low, a status icon appears on the device screen indicating low or very low battery status. In both cases, perform an ActiveSync operation to back up your data, and then recharge your device as soon as possible. If the battery level reaches a low status, the device will enter a sleep mode and cannot be powered up until the battery is charged. Windows Mobile 5.0 devices will retain installed applications and data when the main battery is completely drained for extended periods of time.

1.5 Powering On the WPA 1000II

After you have initially charged your device for about 16 hours, the device is ready to be used. You can now start up your device where you can calibrate the screen, set up the system time zone, and learn some basic stylus usage.

1. Turn on your device by pressing the Power button $\overset{\bullet}{\cup}$ on the front panel.



NOTE: The WPA 1000II screen ships with a protective plastic film. You may remove it by peeling from one corner. The screen will be more susceptible to scratching without the film, but will be more readable.

The WPA 1000II welcome screen appears. The Windows Mobile screen will appear shortly.

2. Calibrate the WPA 1000II

The calibrate screen will automatically appear when the unit is powered-on for the first time or after the system is reset. This screen can also be accessed at any time by tapping Start \rightarrow Settings \rightarrow System tab \rightarrow Screen.

The WPA 1000II will prompt you to calibrate the unit by tapping a sequence of screen locations. Tap gently but firmly. When you have completed the series of taps, press the **Enter** button to confirm it.

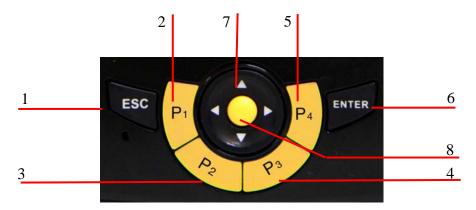
- Set the Time Zone, Date, and Time
 Select your current time zone from the Time zone drop-down menu, and then tap Next.
- 4. Follow all onscreen instructions to complete the set up. The setup wizard provides tips for using the pop-up menus and assigning a lock password to access your device.

After the device setup, you can create an ActiveSync partnership to synchronize information between your computer and your device. See *Establishing Device-PC Connection* in chapter 3 for detailed instructions.

Chapter 2 - Using the Hardware

2.1 Using the Keypad

The WPA 1000II keypad has a navigation key and six special keys to launch particular applications and display the on-screen keyboard.

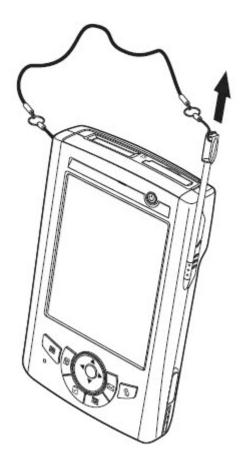


No.	Button Name	Description	
1	ESC	Press the ESC button to exit from the section you entered.	
2	P ₁	Press P₁ to enable Task Manager.	
3	P ₂	Press P ₂ to enable scanner.	
4	P ₃	Press P ₃ to enable Battery.	
5	P ₄	Press P ₄ to enable Device Settings.	
6	6 Enter	Press the Enter button to access the menu options and confirm	
	Littor	your selection.	
7	Navigation key	Use the up, down, left, and right arrow keys to navigate through	
_ ′	ivavigation key	the menu options.	
8		Press the OK button to access the menu options and confirm	
0	OK	your selection.	

2.2 Using the Stylus

CAUTION! Never use anything other than a WPA 1000II stylus on the screen; using a different device may cause permanent damage.

 Push the stylus in the direction of the arrow, then pull out to remove the stylus from its holder.



- 2. Hold the stylus like holding a pencil.
- 3. To make a choice from a menu, lightly tap the tip of the stylus on that choice.
- 4. To write data into a field on a form, use the stylus to print the letters or numbers (of on-screen keyboard). Use very light pressure.

2.3 Using the SDIO/MMC Slot

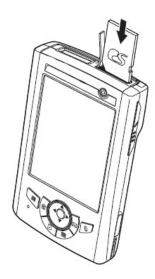
Your device has an expansion slot compatible with a range of SD, SDIO, and MMC storage cards, which are primarily used to back up or transfer files and data.

To insert a storage card:

1. Hold the device securely, and then lift the rubber cover from the SDIO/MMC slot



2. Push the card into the slot until you feel the SD card click into place, and this will signal that the card is already properly seated in the slot.



The card is secure when it is not protruding from the slot.

To remove a storage card:

- 1. Hold the device securely. Push the card in and release. The card pops out.
- 2. Remove the card from the slot.

Chapter 3 - Getting Connected

The WPA 1000II enables users to link to a host computer using an RS-232, or Bluetooth, WiFi, and GPRS connection for data communication. This chapter provides an overview of WPA 1000II communication options.

3.1 Establishing Device-PC Connection

3.1.1 Installing Microsoft ActiveSync (XP only)

In order to exchange data between your computer and the WPA 1000II, Microsoft ActiveSync must be installed on your computer. Use the USB/RS232 charging cable that comes with your device or the docking station to connect the device to your computer.

NOTE: If you have a previous version of Microsoft ActiveSync installed on your computer, uninstall it before installing the latest version of Microsoft ActiveSync.

To install Microsoft ActiveSync on your computer:

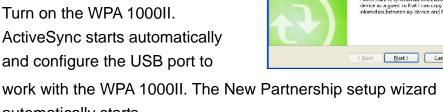
- Close any open programs, including those that run at startup, and disable any virus-scanning software.
- 2. Download the ActiveSync software from the Microsoft ActiveSync Download page at http://www.microsoft.com/download/en/details.aspx?id=8847.
- Follow the instructions on the Microsoft website to download ActiveSync. 3.

Connecting the Device to Your Computer

- After ActiveSync has been installed, connect the WPA 1000II to your PC as described in connecting the terminal to a host (PC/Notebook) to a PC.
- 2. Turn on the WPA 1000II.

automatically starts.

3. ActiveSync starts automatically and configure the USB port to





NOTES: If ActiveSync doesn't start automatically, click Start → Programs → Microsoft ActiveSync.

If a message appears indicating that it is unable to detect a connection, click the Cancel button and manually configure the communication settings.

- 4. Follow the on-screen instructions.
- When the configuration process is complete, the Active-Sync window appears.



6. Synchronization will be initialized and will take place if you've chosen to synchronize periodically or upon connection.

NOTE: Your computer can create a partnership with multiple WPA 1000IIs. Also, a WPA 1000II can create a partnership with up to two computers.

3.1.2 Windows Mobile Device Center (Vista and Windows 7 Only)

Windows Mobile Device Center offers device management and data synchronization between a Windows Mobile-based device and a computer.

To download Windows Mobile Device Center, please go to http://support.microsoft.com/kb/931937. This link contains detailed instructions for downloading and installing Windows Mobile Device center, as well as instructions for connecting your device and troubleshooting tips.

3.2 WiFi Connection

The WPA 1000II comes with built-in RF capability. A wireless network can be added either when the network is detected or by manually entering settings information. Before following these instructions, make sure if authentication information is needed.

3.2.1 Using the Summit Utilities

You can use the Summit Client Utility tool to setup or change the WiFi settings.

Admin Login

Tap Start → Setting → System → Wi-Fi.
 The Summit Client Utility window appears.



2. To login as an administrator, tap Admin Login.



3. Enter the Admin Password. (Default password: SUMMIT)



Scan Available AP

1. Under Profile tab, tap Scan for available AP.



2. You may select a desired AP to create a new profile. Tap Configure.



3. Tap Yes to create the new profile.



4. Enter the WEP key or network key. Tap OK.



Commit and Activate

1. Tap Commit to activate the setting.



2. Under Main tab, select the profile you want to activate.



3. Under Status tab, you can see the IP address, signal strength and quality.



4. Tap OK to exit the Summit Client Utility.

5. Tap Start → Boot-Mode. Tap Warm Boot to warm start the terminal and load the previous settings.

6. If you want to disconnect the AP, tap Disable Radio.



Chapter 4 - Barcode Scanner Programs

The WPA 1000II provides an option for the barcode scanner, allowing you to scan and decode various types of 1D/2D barcodes.

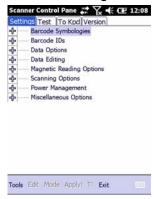
4.1 Scanner Setting

The user can change the default barcode symbology using the Scanner Control Panel. From the Scanner Control Panel, the user can change the default symbology, place delimiter characters behind scanned data, and save the settings.

Tap Start → Settings → System → Scanner.

The Scanner Control Panel appears.

NOTE: Press Func key and "7" button.



4.2 Scan2Key

The Scan2Key application routes input from a scanner port to a keypad buffer, making all input from the scanner emulate input from the keypad. Using Scan2Key, scanned data will be directed from the scanner port to any waiting (active/focused) text editor such as MS Mobile Word or a text box in an application.

4.3 Barcode Symbologies

	ode Symi	Char Check	Transmit	
Barcode	Enable /	/ Digit	Check	Others
Symbology	Disable	verification	Char/digit	
Australian	YES			Send bar width data
Post				
British Post	YES			
Canadian	YES			
Post				
Codabar	YES	YES	YES	Transmit start & stop char, *data length
Code 11	YES	YES		*data length
Code	YES			*data length
128/EAN				
128				
Code 39	YES	YES	YES	For ASCII, Transmit start & stop char,
				Append mode, *data length
Code 93	YES			*data length
Dutch (KIX)	YES			
Post				
EAN 13	YES		YES	2 digit addenda, 5 digit addenda,
				Addenda required, Include addenda
				separator
EAN 8	YES		YES	2 digit addenda, 5 digit addenda,
				Addenda required, Include addenda
				separator
IATA 2 of 5	YES			*data length
Interleaved	YES	YES	YES	*data length
2 of 5				
ISBT	YES			
Japanese	YES			
Post				
Korean Post	YES			*data length
Matrix 2 of 5	YES			*data length
MSI	YES		YES	*data length
Planet	YES		YES	
Postnet	YES		YES	
RSS	YES			*data length

Barcode Symbology	Enable / Disable	Char Check / Digit verification	Check	Others
(Databar)				
UPC A	YES		YES	2 digit addenda, 5 digit addenda,
				Addenda required, Include addenda
				separator, Send number system
UPC E	YES		YES	2 digit addenda, 5 digit addenda,
				Addenda required, Include addenda
				separator, Send number system,
				Expanded UPC-E
UPC E1	YES		YES	2 digit addenda, 5 digit addenda,
				Addenda required, Include addenda
				separator, Send number system,
				Expanded UPC-E

NOTE: *Value Adjustable Scanner Control Panel Version 5.14

Barcode Symbologies 2D

Barcode Symbology	Enable / Disable	Char Check / Digit verification	Transmit Check Char/digit	Others
Aztec	YES			Runes, *data length
Codablock F	YES			*data length
Code 49	YES			*data length
Data Matrix	YES			*data length
EAN-UCC Composite	YES			UPC composite, *data
				length
MaxiCode	YES			*data length
MicroPDF417	YES			*data length
OCR	YES			OCR mode, OCR direction,
				Template, Group G, Group
				H, Check character
PDF-417	YES			*data length
QR Code	YES			
TLC-39 (TCIF Linked	YES			
Code 39)				

NOTE: *Value Adjustable Scanner Control Panel Version 5.14

Chapter 5 - Advanced Settings

5.1 Performing a Hardware Reset

You may have to perform a reset if the device freezes (i.e., the device no longer responds to the buttons or tapping on the screen).

A soft reset allows your device to get a fresh start, similar to rebooting a computer. This will restart your device and adjust memory allocation. All records and entries are retained after a soft reset. Unsaved data in open programs may be lost.

5.1.1 Performing a Warm Boot

- 1. Remove the stylus from its holder.
- 2. Lightly press the tip of the stylus to the reset button located at the rear side of the terminal.



5.1.2 Performing a Cold Boot

A cold boot will erase all data and all programs you have added, and will restore the device to the default factory settings.

Never perform a cold boot unless a warm boot does not correct your problem. When you perform your next ActiveSync operation, you can restore any data that you previously synchronized to your computer or you can restore data that you backed up to a storage card.

Method 1: From Windows Mobile

Tap Start → BootMode.
 The BootMode Screen appears.



2. Tap Cold Boot.

The system is reset and you will lose all data including all files in the RAM memory.

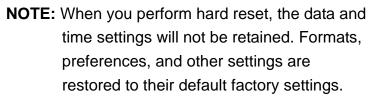


Method 2: From Hardware

- 1. Remove the battery compartment cover and the main battery. See the section of *Installing the Battery*.
- 2. Turn the backup battery switch off.



- 3. Turn the backup battery switch on.
- Put the battery back into the battery compartment and replace the battery compartment cover.
 - System will cold boot.





Appendix I - System Specifications

	CPU: Marvell PXA320 Processor, 806MHz
System	Mobile DDR RAM: 256MB
	NAND Flash RAM: 512MB
	OS: Windows Embedded Handheld 6.5 Classic
D'a de	Transflective color 3.5" QVGA with backlight 240×320
Display	touch panel LCD
Keypad	4 function keys + Navigation keys
Notification	LED
	1D Barcode EngineUPC-A/E, EAN-8/13, Codabar, Code
	39, Code 39 full ASCI, Code 93,Code32, Interleaved & Std.
Symbologies	2 of 5, EAN 128, Code 11, Delta, MSI/Plessey,Code 128,
	Toshiba
	Dual Function LED
Indicator	Green (Data scanning)
	Red (Charging status)
	USB: USB1.1 Host & Client
Communication	WLAN: IEEE 802.11 b/g/n
	PAN: Bluetooth 2.1 + EDR
Audio	0.8 Watts Speaker
Expansion Slot	SD Memory with SDHC Support (up to 32GB)
Power Source	Main Battery: 8.14 Watt-Hour 3.7V @2200 mAh
	Backup Battery: Ni-Mh battery Supports 2 hours backup
Final access	Weight: 213g (with battery)
Enclosure	Dimension: 126mm (L) x 25mm (H) x 77mm (W)

	Operating Temperature: 14°F to 122°F (-10°C to 50°C)
	Storage Temperature: -4°F to 140°F (-20°C to 60°C)
Environmental	Charging Temperature: 32°F to 104°F (0°C to 40° C)
	Relative Humidity: 5% ~ 95% (non-condensing)
	Drop Test to Concrete: 3 feet (90 cm) on 6 faces/4 corners to
	concrete
	Microsoft Visual Studio 2005/2008
Software	Auto Installer
	USB cradle with battery charger
Accessories	Main battery (2200mAh) USB communication and charging cable
	AC adaptor
Regulatory	CE, FCC, BSMI, VCCI, CCC, RoHS compliance
Approvals	- ,,,,,