

IT9000 User's Guide

Microsoft® Windows® CE 5.0

Entry Level Handy Terminal



Version 1.1

August / 12/ 2011

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Charpt 1. References

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This document is copyrighted. All rights are reserved. This document may not, in whole or in part, be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form without prior consent, in writing.

1.1. General Use And Product Safety

- Do not stare into the laser beam directly or shine it into eyes.
- Never use strong pressure onto the screen or subject it to severe impact, as the LCD panel could become cracked and possibility cause personal injury. If the LCD panel is broken, never touch the liquid inside, for such contact would irritate the skin.
- Although the handy terminal has been passed the test of IP54 standard for water and dust resistance, avoid prolonged exposure to rain or other concentrated moisture. For these conditions exceed the IP54 standard, and could result in water or other contaminants entering into the handy terminal.
- Use only the approved AC Adapter with the Terminal. Use of an unapproved AC Adapter could result in electrical problems, or even cause a fire or electrical shock to the user.
- Be sure that only authorized supplier are allowed to disassemble and reassemble the device. If the device or parts has been damaged due to any wrong handling, shall void the product and parts warranty.
- Always make back-up copies of all important data. Easy done by using a

cable or Single Cradle (sold by optional) to transfer data to the computer. Manufacturer is not liable for any data damages or data loss caused by deletion or corruption by using of this device, or due to the drained battery.

ÿ Lithium-ion battery packs might get hot, explode, ignite and/or cause serious injury if exploded by abusive using. Please follow the safety warnings listed as below:

- ⊠ Do not place the battery pack in fire or heat the battery.
- ⊠ Do not install the battery pack backwards so the polarity is reserved.
- ⊠ Do not connect the positive Battery pack with negative battery pack to each other with any metal object (like wire).
- ⊠ Do not carry or store battery pack together with metal objects.
- ⊠ Do not pierce the battery pack with nails, strike the battery pack with a hammer, step on the battery pack or otherwise put it to strong impacts or shocks.
- ⊠ Do not solder directly onto the battery pack.
- ⊠ Do not expose battery pack to liquid, or allow the battery contacts to get wet.
- ⊠ Do not disassemble or modify the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite.
- ⊠ Do not discharge the battery pack using any device except for the specified device. When it is used in devices other than the specified devices, the battery pack can be damaged or its life expectancy reduced. If the device causes any abnormal current to flow, it may cause the battery pack to become hot, explode or ignite and cause serious injury.
- ⊠ In the event the battery pack leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical care. If left untreated, the battery fluid could cause damage to the eye.

1.2. Federal Communication Commission

Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTS: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. 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 is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

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

1.3. SAR Compliance

This equipment has been SAR-evaluated for use in laptops (notebooks) with side slot configuration.

Caution: Please also note that Terminal is limited in CH1~CH11 for 2.4GHz by specified firmware controlled in U.S.A.
The FCC ID of Handy Terminal is **SPY-PDT**

1.4. WEEE Compliance

 This symbol is placed on the product to remind users to dispose of Waste Electrical and Electronic Equipment (WEEEEE) appropriately, per Directive Europe 2002/96/EC. In most areas, this product can be recycled, reclaimed and re-used when properly discarded. Do not discard labeled units with trash.

1.5. System Specifications

Processor	Marvell PXA270 with 312 MHz 32 bits RISC CPU
Memory	- 2GB Flash ROM - 64 MB SDRAM
Display and Touch Panel	- Trans-missive Micro Reflective 2.4" TFT 256K Color QVGA LCD with high brightness LED backlight - Resistive type touch panel (optional)
Audio	- Two buzzers
RF Radio Support(Optional) - Wireless LAN	- 802.11b/g Wireless LAN - Compliant with WPA and IEEE 802.11i WPA2 - Cisco Compatible Extensions (CCX)

	<p>Version 4 certification</p> <ul style="list-style-type: none"> - Support full range of 802.1x(EAP) including EAP-TLS, EAP-FAST, LEAP, PEAP-MSCHAPv2 and PEAP-GTC - Support Static, Pre-shared and Dynamic encryption 40-bit and 128-bit keys. WEP, WPA: TKIP and WPA2:AES - Support coexistence with Bluetooth
RF Radio Support(Optional) -Bluetooth WPAN	<ul style="list-style-type: none"> -- Class II with V2.0 compliant -- Range 10 m -- Support coexistence with WiFi
External Connect Ports	<ul style="list-style-type: none"> - One I/O connector support USB Client and power input - I/O connector supports connection for USB cable, cradle and power adapter - USB supports USB Client with USB 1.1 compliant
Scan Engine	<ul style="list-style-type: none"> - Motorola SE955 1D laser scanner
Indicator	<ul style="list-style-type: none"> - One two color LED for charger status indicator <ul style="list-style-type: none"> Red: Charging Green: Fully charged - One two color LED scanner indicator <ul style="list-style-type: none"> Red: Scanning Green: Good scan
Battery	<ul style="list-style-type: none"> - Standard battery pack: 1100mAH, 3.7V, Li-Ion - Extended battery pack: 2000mAH, 3.7V, Li-Ion - One rechargeable 15mAH, 2.4V Li-MH backup battery - One battery cover sensor switch - Battery charge time: <ul style="list-style-type: none"> 1100mAH battery pack: 2.5 hours 2000mAH battery pack: 4.0 hours

Power Adapter	- 100~240Vac, 50/60Hz Input - 5Vdc/3A dc, Wall Mount
Button/Key	- One 23-key numeric keypad - Four function keys - Two direction keys - One scan key - One power button
Dimensions	135(L) x 50(W) x 25(H) mm
Weight	170g including 1100mAH battery pack 190g including 2000mAH battery pack
Software	- WinCE 5.0 Core Version - Backup manager, Scanner Setting utility, - SDK and BSP development software

1.6. Environment Standard

Storage Temperature	-25□ ~ 60□
Operation Temperature	-10□ ~ 50□
Humidity	95% non-condensing @ 40°C
Free Drop	1.2m (4ft) drop to concrete, 3 drops per 6 surfaces
Tumble Drop	100 times 2 feet tumbles (200 drops)
Environmental Sealing	IP54 Standard
ESD	+/-8KV Air Discharge, +/-4KV Contact Discharge
Regulatory Compliance	CE, CB, FCC, NCC, SRMC, CCC

1.7. Product Label

The Handy Terminal has several labels as showed in Figure 1-1.

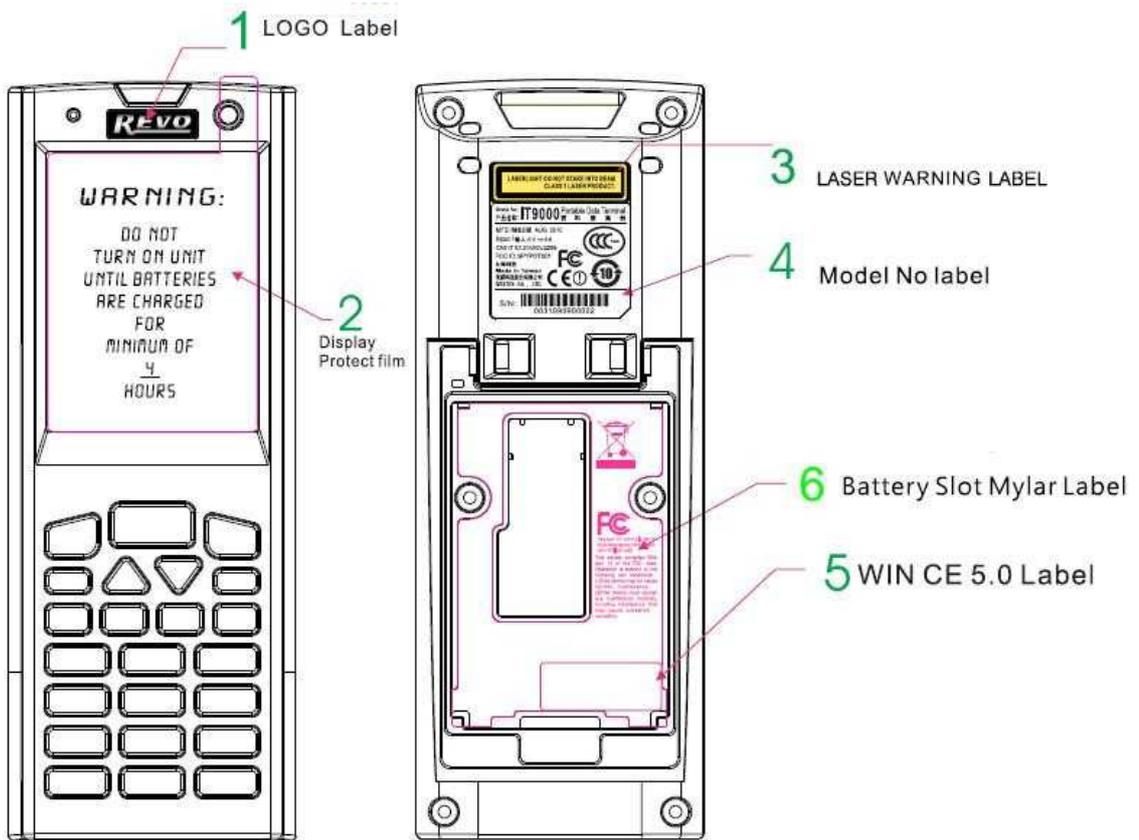


Figure 1-1

1.8. Warranty And After Service

Should this Handy Terminal be malfunctioned, please contact your original retailer providing information about the product name, the serial number, and the details about the problem.

Charpt 2. Introduction

Congratulations on purchasing the Terminal, a Microsoft Windows® CE .Net rugged Terminal. It's special combination of features make it perfect for using in a wide range of applications. These features as :

- ✘ Small rugged lightweight form factor
- ✘ Microsoft Windows® CE .Net 5.0 core operating system
- ✘ Flexible module design
- ✘ Wireless mobility via Bluetooth (802.11b/g by optional)
- ✘ Robust expansion capability
- ✘ Trans-missive type color LCD display

2.1. Package Contents

Open the package and check all the parts are inside without shortage and damage :

No.	Item	Notes
1.	Handy Terminal	Standard
2	Quick Guide	Standard
3.	Standard Battery Pack (1100mAH)	Standard
4.	Power Adapter	Standard
5.	USB Y Cable	Standard
6.	Hand Strap	Standard
7.	Stylus	Standard

2.2. General View

2.2.1. Handy Terminal Front Side View

Figure 2-1



2.2.2. Handy Terminal Back Side View

Figure 2-2

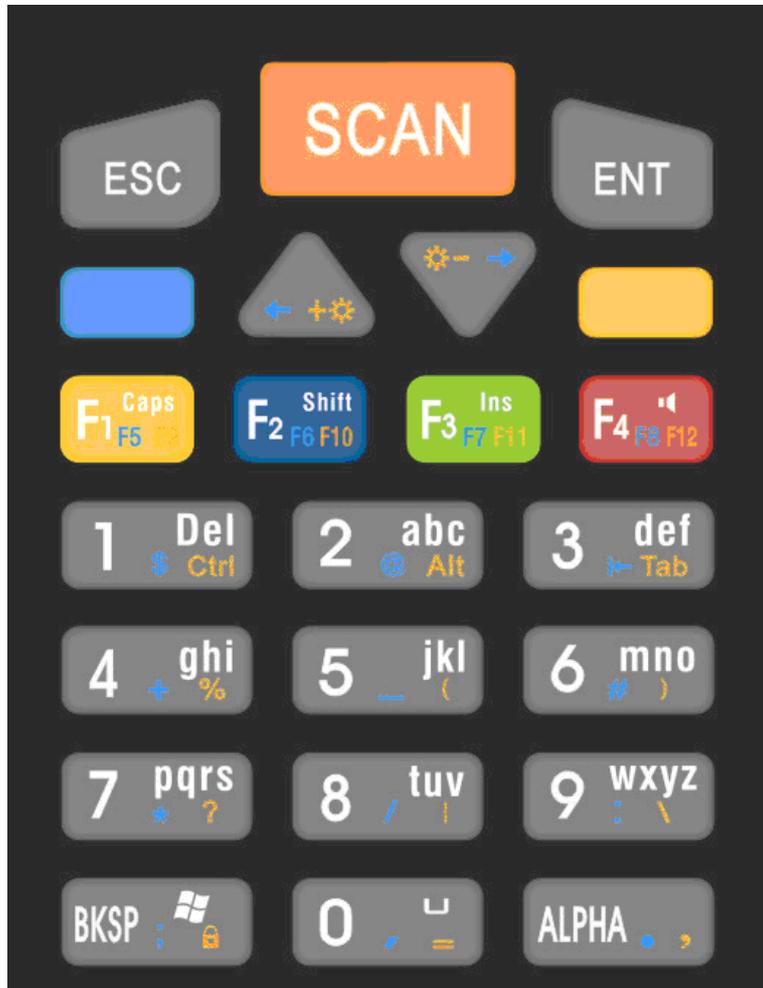


Table 2-1 Description of Terminal General View

1	Scanner LED Indicator	“Red” color	Scan is in progress
		“Green” color	Scan is reading successful
2	Charge LED Indicator	“Red” color	Battery Pack is still charging
		“Green” color	Battery Pack is charged full
3	LCM/ Touch Panel	Do specific action through touch panel by stylus	
4	Scan key	Start scanning the barcode by pressing the scan key	
5	Power key	Turns on the system resume or turn off the system suspend, if this power key button is pressed.	
6	Fun key()	<ol style="list-style-type: none"> 1. This key is used to combination with other keys to type special character or perform system functions 2. The status icon of task bar will display like  when it is orange function mode. 	
7	F1 key~ F4 key	The four application keys, hot keys of application program defined by end user.	
8	Navigation key()	Combine fun Key and Navigation keys for left, right, up and down directions	
9	Alpha-Numeric keys	Numeric keys, Change to Alpha keys after pressing Alpha key.	
10	Alpha key	<ol style="list-style-type: none"> 1. Toggle Alpha-mode for Alpha-Numeric keys 2. The status icon of task bar will display like  when it is Alpha mode. 	
11	Fun key ()	<ol style="list-style-type: none"> 1. This key is used to combination with other keys to type special character or perform system functions. 2. The status icon of task bar will display like  when it is blue function mode. 	
12	Enter key	This key confirms data entry	
13	DC power /USB Synchronization port	A connector to support DC power, USB Synchronization functions	
14	Barcode window	A window for scanning of barcode reader	
15	Stylus	Use the stylus for selecting items and entering information.	
16	Battery cover	Protect Battery pack, keep the switch of battery cover to leave system from suspend mode	
17	Battery cover latch	To keep Battery Cover locked	
18	Hand strap	This strap can be sealed tighter or looser	

2.3. Keypad Description

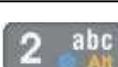
Figure 2-3



2.3.1. Key Maps and Behavior

A 23-key numeric alpha keypad contain 0-9 digits as single keystrokes will be produced. The triple click behavior to Alphabetic keys is described elsewhere.

Position	Legend	Default	Alpha Function	Blue Function	Orange Function
----------	--------	---------	----------------	---------------	-----------------

1		ESC			
2		SCAN			
3		Enter			
4		Alpha		□	,
5		Bksp	Windows Start Menu	;	Key Lock
6		Up		←	Bright +
7		Down		→	Bright -
8		F1	Caps	F5	F9
9		F2	Shift	F6	F10
10		F3	Ins	F7	F11
11		F4	Mute	F8	F12
12		1	Del	\$	Ctrl
13		2	a, b, c	@	Alt
14		3	d, e, f	Back Tab	Tab
15		4	g, h, i	+	%
16		5	j, k, l	—	(
17		6	m, n, o	#)
18		7	p, q, r, s	*	?
19		8	t, u, v	/	□

20		9	w, x, y, z	:	\
21		0	Space	,	=

2.3.2. Numeric Keypad Alpha Mode and Triple Click

In the 23-key Numeric keypad system, an 'Alpha' mode allows Alphabetic characters to be entered. To enter the Alpha mode, press the ALPHA key. After that, the 0, 1, 2, ... 8, 9 keys will only represent Alphabetic characters, per the table below.

Default Alpha mode produces lower case alphabetic characters. User can use Shift or Caps Lock to get upper case alphabetic characters. No keyboard messages will be generated until the character selection is finalized.

Numeric Mode	Alpha Mode			
	Key Legend	First Key-press	Second Key-press	Third Key-press
	Caps On	Caps Off	Caps On	Caps Off
	Shift	Shift	Shift	Shift
	Ins On	Ins Off	Ins On	Ins Off
	Mute On	Mute Off	Mute On	Mute Off
	Start Menu On	Start Menu Off	Start Menu On	Start Menu Off
	Space	Space	Space	Space
	Del	Del	Del	Del
	a	b	c	a
	d	e	f	d
	g	h	i	g
	j	k	l	j
	m	n	o	m
	p	q	r	s

	t	u	v	t
9 wxyz	w	x	y	z

Table 2- 2 Alpha + Numeric keys define

To Enter	Press the Keys	To Enter	Press the Keys
a	ALPHA 2 abc	A	ALPHA F2 2 abc
b	ALPHA 2 abc 2 abc	B	ALPHA F2 2 abc 2 abc
c	ALPHA 2 abc 2 abc 2 abc	C	ALPHA F2 2 abc 2 abc 2 abc
d	ALPHA 3 def	D	ALPHA F2 3 def
e	ALPHA 3 def 3 def	E	ALPHA F2 3 def 3 def
f	ALPHA 3 def 3 def 3 def	F	ALPHA F2 3 def 3 def 3 def
g	ALPHA 4 ghi	G	ALPHA F2 4 ghi
h	ALPHA 4 ghi 4 ghi	H	ALPHA F2 4 ghi 4 ghi
i	ALPHA 4 ghi 4 ghi 4 ghi	I	ALPHA F2 4 ghi 4 ghi 4 ghi
j	ALPHA 5 jkl	J	ALPHA F2 5 jkl
k	ALPHA 5 jkl 5 jkl	K	ALPHA F2 5 jkl 5 jkl
l	ALPHA 5 jkl 5 jkl 5 jkl	L	ALPHA F2 5 jkl 5 jkl 5 jkl
m	ALPHA 6 mno	M	ALPHA F2 6 mno
n	ALPHA 6 mno 6 mno	N	ALPHA F2 6 mno 6 mno
o	ALPHA 6 mno 6 mno 6 mno	O	ALPHA F2 6 mno 6 mno 6 mno
p	ALPHA 7 pqrs	P	ALPHA F2 7 pqrs
q	ALPHA 7 pqrs 7 pqrs	Q	ALPHA F2 7 pqrs 7 pqrs
r	ALPHA 7 pqrs 7 pqrs 7 pqrs	R	ALPHA F2 7 pqrs 7 pqrs 7 pqrs
s	ALPHA 7 pqrs 7 pqrs 7 pqrs 7 pqrs	S	ALPHA F2 7 pqrs 7 pqrs 7 pqrs 7 pqrs
t	ALPHA 8 tuv	T	ALPHA F2 8 tuv
u	ALPHA 8 tuv 8 tuv	U	ALPHA F2 8 tuv 8 tuv
v	ALPHA 8 tuv 8 tuv 8 tuv	V	ALPHA F2 8 tuv 8 tuv 8 tuv
w	ALPHA 9 wxyz	W	ALPHA F2 9 wxyz
x	ALPHA 9 wxyz 9 wxyz	X	ALPHA F2 9 wxyz 9 wxyz
y	ALPHA 9 wxyz 9 wxyz 9 wxyz	Y	ALPHA F2 9 wxyz 9 wxyz 9 wxyz
z	ALPHA 9 wxyz 9 wxyz 9 wxyz 9 wxyz	Z	ALPHA F2 9 wxyz 9 wxyz 9 wxyz 9 wxyz

2.3.3. Function Key

The “Fun” key is used to combine with other key to type special character or perform system functions.

The status icon of task bar will display like  when it is Numerical mode.

If press  key first, the status icon of task bar will display like  and it is Alpha mode, If repress  key again, then return to Numerical mode.

If press  key first, the status icon of task bar will display like  and it is Blue Function mode, if repress  key again, then return to Numerical mode.

If press  key first, the status icon of task bar will display like  and it is Orange Function mode, If repress  key again, then return to Numerical mode.

Key Sequence	Fn+ Main Function	Definition
 	Backlight increase	<ol style="list-style-type: none"> 1. Increase the LED backlight brightness of display screen(Lighter) 2. You must press  key to enter Orange function mode first, then press  key to increase backlight brightness each time.
 	Backlight decrease	<ol style="list-style-type: none"> 1. Decrease the LED backlight brightness of display screen(darker) 2. You must press  key to enter Orange function mode first, then press  key to decrease backlight brightness each time.
 	Left	It is same as “←” key on the standard keyboard of desktop
 	Right	It is same as “→” key on the standard keyboard of desktop
 	F5	It is same as F5 key on the standard keyboard of desktop
 	F6	It is same as F6 key on the standard keyboard of desktop
 	F7	It is same as F7 key on the standard keyboard of desktop
 	F8	It is same as F8 key on the standard keyboard of desktop
 	F9	It is same as F9 key on the standard keyboard of desktop
 	F10	It is same as F10 key on the standard keyboard of desktop
 	F11	It is same as F11 key on the standard keyboard of desktop
 	F12	It is same as F12 key on the standard keyboard of desktop

Key Sequence	Fn+ Main Function	Definition
 	Caps	It is same as Caps key on the standard keyboard of desktop
 	Shift	It is same as Shift key on the standard keyboard of desktop
 	Ins	It will insert next character that you press on the cursor
 	Mute	Disable / Enable Scan beep
 	Ctrl	It is same as Ctrl key on the standard keyboard of desktop
 	\$	It will display a "\$" character on the cursor
 	Del	It is same as Del key on the standard keyboard of desktop
 	Alt	It is same as Alt key on the standard keyboard of desktop
 	@	It will display a "@" character on the cursor
 	Back Tab	Move the cursor to previous tab stop or previous control (on a form), like "Shift & Tab" key the standard keyboard of desktop.
 	Tab	Move the cursor to tab stop, like "Tab" key the standard keyboard of desktop
 	+	It will display a "+" character on the cursor
 	%	It will display a "%" character on the cursor
 	—	It will display a "—" character on the cursor
 	(It will display a "(" character on the cursor
 	#	It will display a "#" character on the cursor
 )	It will display a ")" character on the cursor
 	*	It will display a "*" character on the cursor
 	?	It will display a "?" character on the cursor
 	/	It will display a "/" character on the cursor
 	 	It will display a " " character on the cursor

Key Sequence	Fn+ Main Function	Definition
	:	It will display a “:” character on the cursor
	\	It will display a “\” character on the cursor
		It will pop up the start menu of system.
	;	It will display a “ ; ” character on cursor
	[K/B Lock [Icon]	If you want lock the Keyboard, please press key first, and then press key. It will display on the status bar, Otherwise, if you want unlock keyboard, you must press key, and then press key again.
	Space	It will display a space character on the cursor
	,	It will display a “、” character on cursor
	=	It will display a “= ” character on cursor
	.	It will display a “.” character on cursor
	,	It will display a “,” character on cursor

2.3.4. The Soft Keypad

In applications that accept keypad input, the soft input panel (**SIP**) can be used to enter data using the stylus. The **SIP** is digital, QWERTY-Style keyboard (See Figure 2-4).

To open the **SIP**, tap the **keyboard** icon () to open the menu and select **Hide Input Panel** to close the keyboard.

Use the stylus to select letters, numbers, or symbols from the **Soft Input Panel** for the current application(see Figure 2-5) .

Figure 2-4

Figure 2-5



2.4. Scanning Barcode

To use the scanning function, complete the following steps :

1. Press the scan key. The scanner scans as long as you hold the key or for few seconds.
2. Upon reading a barcode, the red LED indicator comes on until the trigger is release or few seconds. The green LED and the beep tone indicate a good read.
3. Aim the scanning beam at the center of barcode.



4. Barcode Scanning Position

This device can read from 40mm to 300mm distance.

- a) Position the laser scanner close to the barcode when scanning small barcodes. And position it is a distance from the barcode when scanning large barcodes
- b) The reader can be detected by a red beam.



5. Bad Scanning Position

- a) Make sure that the bars enter the laser beam when scanning large barcodes.
- b) Scanning operations may fail if the laser beam position as below.



Note: This product scans using laser light. Never look directly into the laser light or shine the laser light into the eyes

2.5. Resetting the Handy Terminal

2.5.1. Software (Warm) Reset

A warm reset is a transition from the on, idle, or suspend power state that close all applications, clears the working RAM, but preserves the file system.

Reason to Warm Reset: If an application “hangs”, initiate a warm reset to terminate the application only.

Procedure to Warm Reset: To initialize a warm reset, press and hold the

 &  key.

Note: **After Warm Reset:**

- The desktop appears with the application shortcuts on the screen.
- The custom settings in the registry are persistent.
- The wireless will reconnects to the network system.

2.5.2. Cold Reset

1. You can use Cold Reset to initiate device if WINCE.NET OS lock up or Warm Reset still can't work

2. To perform Cold Reset, please press <  & <  & <  > key simultaneously until Cold reset start.
3. Device will initiate boot up after Cold Reset.

Caution:

Please press the <ESC> & <Power> key first. Try warm reset before you initiate Cold Reset. All applications will be Closed and working RAM and all files will be cleared if you initiate the Cold Reset. It's better install your application and files to StorageCard folder.

2.6. Saving to Flash

The StorageCard folder let the application or a data file can be stored into the Flash Memory. To save an application or data to the Flash Memory, from your current application, select **File** \pm **Save As** \pm select the **StorageCard** location and save it.

You can use backup manager form start \pm program \pm backup manager to backup all system and save it to the StorageCard folder after you install your application program and do the all setting complete.

Note:

The StorageCard storage memory persists all reset (warm/cold reboot) conditions and software/firmware updates.

We strongly recommend installing all applications, applets, programs, and important data files to the StorageCard location.

Caution:

If an application or a data file is only installed or saved in RAM, a hard reset will result in the loss of that application or data file.

The size of the Flash Disk folder will vary, depending on the size of system firmware.

- Inside of My Device please select StorageCard icon, then tap **File** \pm **Properties**.
- The **StorageCard Properties** dialog will display the size of StorageCard folder.



Note : IT9000 will include 2GB Micro SD card , please don't remove it. and must have systemtool folder on the storage card.

Charpt 3. Getting Started

3.1. Charging the Battery Pack

Before using the Handy Terminal, perform the basic procedure of charging the battery pack through the following steps.

3.1.1. Installing the battery pack

1. Turn the switch cover latch and lift the battery cover away from the Handy Terminal.



Fig I

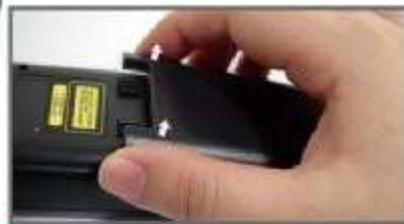


Fig II



Fig III



Fig IV



Fig V

2. Turn the switch cover latch and lift the battery cover away from the Handy Terminal.
3. Insert the battery pack into the battery compartment with the label facing out, and ensuring the battery snaps into place
4. Replace the battery cover by insert the top first, switch lock the battery cover latch to secure the cover to the Handy Terminal.
5. Charge time. For the first time to charge the battery pack needs approximately 5 hours. Subsequent charging time needs approximately 3 hours.

Caution: When charging the battery pack, the Power LED on the Handy Terminal turns on **Red**. After the battery pack is fully charged, the Power LED turns to **green**.

3.1.2. Charging the battery pack with Power Adapter

1. Plug in the DC-IN Converter to the Handy Terminal bottom connector
2. Connect the Power cord to the Power adapter
3. Plug in the connector of the power adapter with DC-IN Converter
4. Connect the power cord to a power source



3.1.3. Charging the battery pack with Single Dock

- a) Do not leave the battery pack inside of the Handy Terminal
 1. Connect the Power cord to the Power adapter
 2. Connect the power cord to a power source
 3. Plug in the connector of the power adapter with Single Dock
 4. Insert the Handy Terminal into the Single Dock



- b) Place the spare battery pack into the Single Cradle's spare Battery charging slot
 1. Connect the Power cord to the Power adapter
 2. Connect the power cord to a power source
 3. Plug in the connector of the power adapter with Single Cradle
 4. Insert the Battery pack into the Single Cradle's spare Battery slot

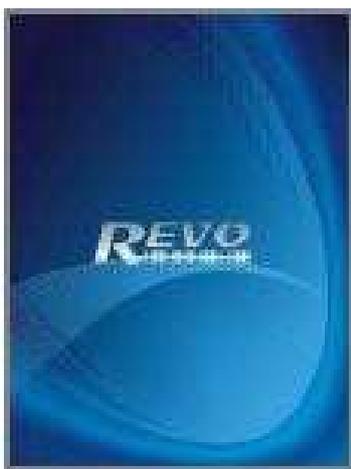
Caution: When charging the battery pack, the Power LED on the Handy Terminal turns to **Red**. After the battery pack is fully charged, the Power LED turns to **Blue**.

Caution: Please don't remove the Battery pack too long from Handy Terminal after you have already full-charged the Battery pack and backup battery pack and start to use the Handy Terminal. Otherwise the data stored inside SDRAM memory will be lost. Please also keep in mind power the Handy Terminal off if you want to change the main Battery pack.

3.2. Starting the Handy Terminal

Press the Power key to turn on/off the Handy Terminal. If the Handy Terminal does not power on, please perform a cold boot. See 2.5 *Resetting the Handy Terminal* on page 22

Caution: When a battery is fully inserted in Handy Terminal for the first time, upon the Handy Terminal's first power up, the device boots and powers on automatically.



When the Handy Terminal is powered on for the first time, it initializes its system.

A splash screen appears for a short period of time followed by the Wince.NET 5.0 window.

3.3. Power (and Backlight) on / off

Press the Power/Backlight key briefly (). If the Handy Terminal does not power on, please perform the cold reset.

As the Handy Terminal initializes its File system, the Terminal splash screen displays for about 30 seconds.

To turn off the Handy Terminal, just press the Power/Backlight key again. This action does not actually turn off the Handy Terminal, it only turn the Handy Terminal into suspend mode. All running applications remain as you left them, until you press the Power key again to resume operation of the Handy Terminal

3.4. Navigating the Display

3.4.1. The Command Bar

Use the **Command** bar at top of the screen to perform tasks in programs, such as opening a file, or editing a file.

3.4.2. The Task Bar

The **Task** bar at the bottom of the screen displays the icon, an icon for the active program, the current time, and system icons for utilities loaded in memory. The **Task** bar includes menu names, buttons, and the keyboard icon, which opens and closes the soft input panel (SIP). The **Task** bar allows you to select and close programs. Refer to Figure 3-1 to view the **Task** bar.

Figure 3-1



3.4.3. Using the Stylus

The stylus function like a mouse, hold the stylus like a pen or pencil. You can do action as follow.

- ✘ Double Tap: Touch the icon twice on the screen to open or execute it.
- ✘ Drag: Firmly press the icon on the screen to drag across the screen.

Caution: Never use an actual pen, pencil, or sharp/ abrasive object to write on the touch screen.

Do not apply unnecessary high pressures on the screen.

3.5. Calibration of the touch Screen

On the initial boot-up of the Handy Terminal, the stylus calibration screen (Labeled Align Screen) opens. Use the stylus to press and hold briefly on the center of each target as it moves around the screen.

If necessary, adjust the backlight on the Handy Terminal to make the screen readable.

When you feel the touch screen function is poor or the operation does not match the exact location it should be, please recalibrate the screen by using the

stylus to tap the Start \pm Settings \pm Control Panel \pm Stylus, to open the “**Calibration**” to recalibrate again

Carefully press and briefly hold stylus on the center of the target. Repeat as the target moves around the screen. Press the Esc key to cancel.



3.6. Control Panel

From the Desktop, double click the “**My Device**” icon then double click the “**Control Panel**” icon to open the Windows CE 5.0 control panel. The control panel can be launched from Start \pm Settings \pm Control panel also.

All applet programs are displayed as a icon on the screen.

Notes: Please make sure that StorageCard folder have a subfolder name “systemtool” after firmware version v1.20. And some execute files of control panel are store to systemtool folder.

Figure 3-2



3.6.1. Barcode Setting

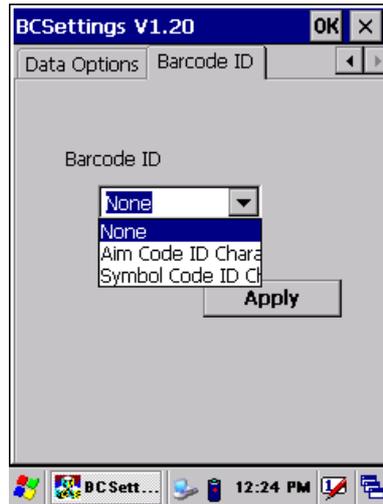
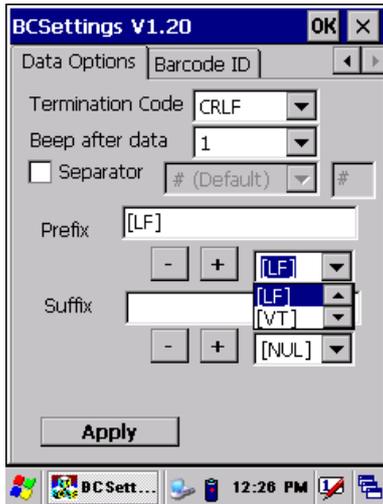
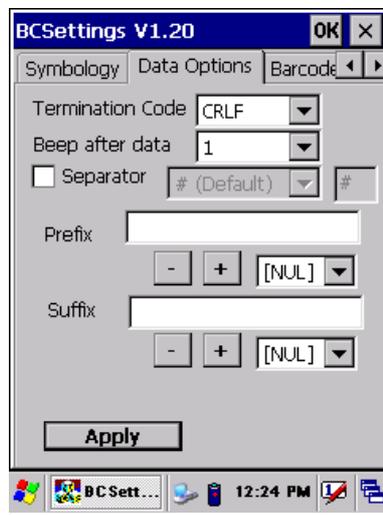
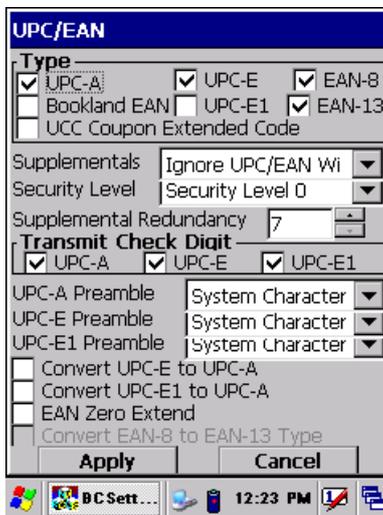
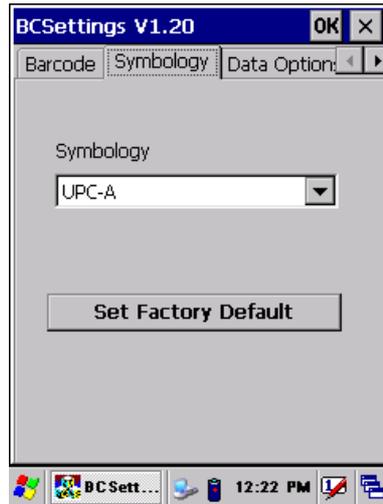
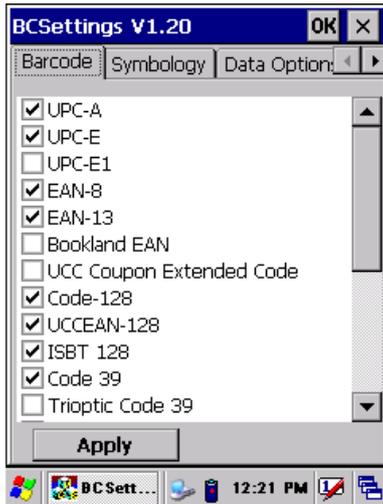
Double click the “**BC Settings**” icon from control panel to open the barcode setting. The system administrator can enable /disable the barcode type from the “**barcode**” page that can be decoded by scanner which you enable.

Tap the “**Symbology**” page, you can select a barcode type form “**Symbology**” item to do the advance setting which you want.

Tap the “**Data Options**” page, you can set another option for all barcode type.

Tap the “**Barcode ID**” page, you can set display barcode Id for all barcode type.

Figure 3-3



Note:

Code ID	Description
Symbol Code ID character	Symbol Code ID define: A: UPC-A, UPC-E, UPC-E1, EAN-8 , EAN-13 B: Code39 , Code32

	C: Codabar D: Code128 , ISBT 128 E: Code93 F: Interleaved 2 of 5 G: Discrete 2 Of 5 J: MSI K: UCC/EAN-128 L: Bookland EAN M: Trioptic Code 39 N: Coupon Code R: RSS-14, RSS-Limited, RSS-Expanded
Aim Code ID Character	Please see <i>Charpt 5.2 AIM code Identifiers of Symbol SE955.</i>

3.7. Backup and Restore Function

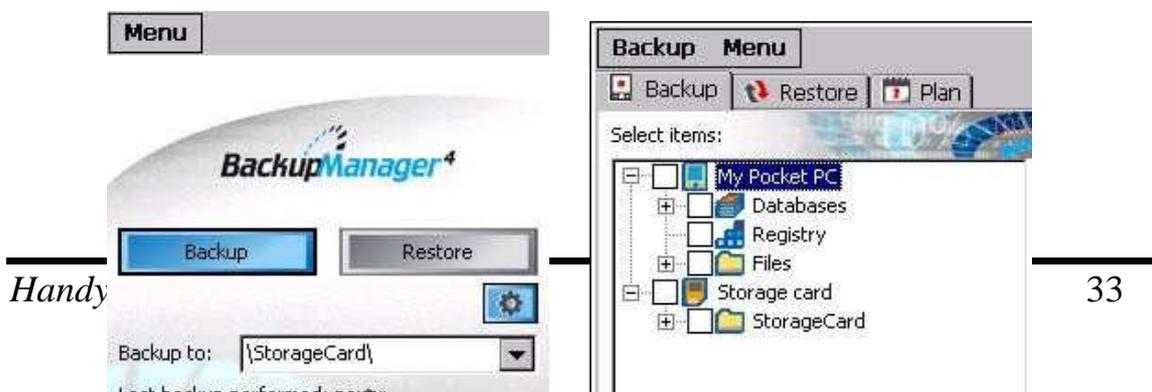
Tap Start \pm Program \pm Backup Manager, the SunnySoft Backup Manager program be executed. The system administrator cans choice Easy Mode or Advanced Mode to backup all system or backup the folders what you want.

The backup directory can be choice to StorageCard folder or My Documents folder.

- Notes :**
1. The file on the StorageCard folder will permanent exist even cold reset.
 2. You can enable auto restore procedure on control panel, if you enable auto restore, it will execute auto restore procedure after system cold reset.
 3. The system will auto backup after power is lower then 10%.

The backup file is an execution file. The system administrator can double click the backup file icon to restore the system. After restore complete please warm reset again.

Figure 3-5



Charpt 4. Communication

4.1. Bluetooth Device

The system administrator has discovered and paired with a Bluetooth device from OBEX tools of Terminal. The system administrator can assign a friend name for Terminal that default friend name is “**WindowsCE**”.

The OBEX tools also support file transfer between two Terminals by Bluetooth connection.

- Notes:**
- ☒ Start \pm settings \pm control panel \pm double click the “system” icon.
 - ☒ The system administrator can assign a device name from “Device Name” Page, default is “WindowsCE”.
 - ☒ You can disable Bluetooth function from wireless communication of Control Panel

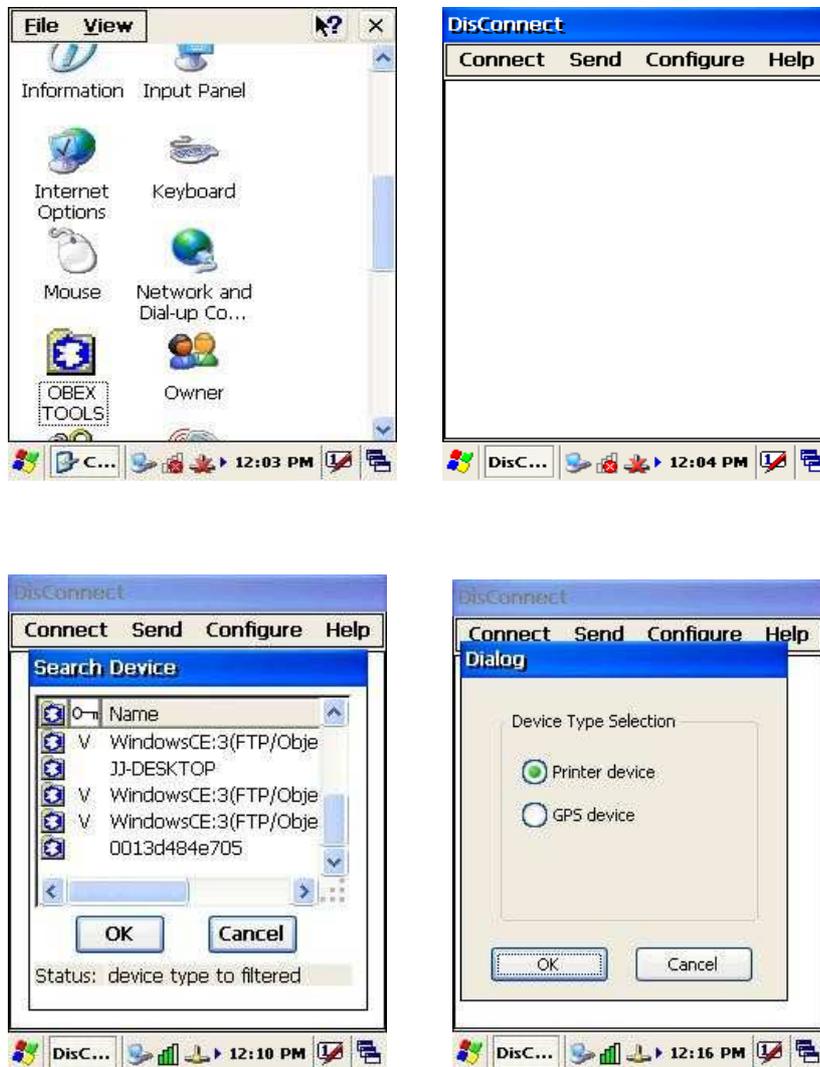
4.1.1. Connect to a Bluetooth device

The administrator can perform procedure as follow to communication with Bluetooth device and Terminal.

- ÿ Double click the “OBEX tools” icon from control panel.
- ÿ Tap the “Connect “ from menu
- ÿ Tap the “Search Device” to discovery the Bluetooth device nearby the Terminal.
- ÿ Select the Bluetooth device that you want pair.
- ÿ Select the “Printer Device“ or “GPS Device” depend on the device, then press “Ok” button. And pop-up a message window to display the connect

port name.

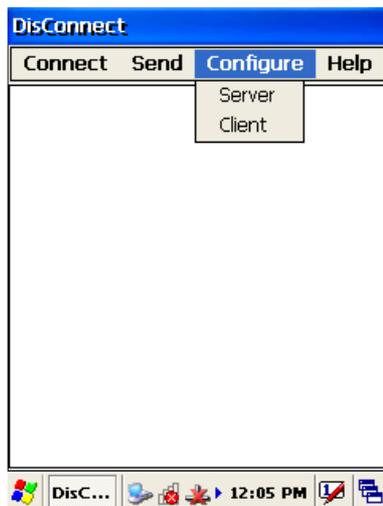
Figure 4-1



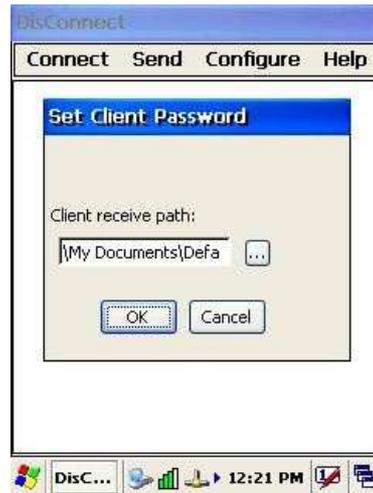


4.1.2. File transfer between two Terminals

The role of one terminal must set as “server” from OBEX tools, and another must set as “client”.



The role of server can be assigned a folder (Ex “StorageCard” folder) to share for client. The role of client can assign a file path to link the Server folder.



If connect ok between two Terminals , the Client will display the folder of server, you can create a folder , delete a folder , sent a file from client to server



4.2. Ethernet Network

Terminal Wi-Fi 802.11 b/g model can communicate with the host computer using the on-board radio frequency component and Access point.

To tap the icon  or  at Task bar, then a Wireless LAN screen “WLAN Manager” appear, select “Wireless information” page. There is a list of Wireless access points, double click the access point on the list that you want connect , set up the Encryption, Authentication, Network key items according the access point setting.

To tap the icon  at the Task bar, then the “Summit client utility” appear,

you can change active profile by default or ThridPartyConfig.



The default admin password is “SUMMIT”.

The on-board radio frequency component of Terminal has an utility, it is visible on the desktop, please tap the “Summit Client utility” icon. You can find more information about this applet for the radio configuration from <http://www.summitdatacom.com/SCU.htm>.

4.3. Microsoft® ActiveSync®

Microsoft ActiveSync is a file transfer tool that has possibility to connect with a host pc and an Terminal and synchronize the files on them. You can establish an ActiveSync connection between host pc and Terminal through the following electrical interfaces.

• USB interface: either directly or through the single cradle.

When the Terminal connect with host PC by USB interface, the Microsoft ActiveSync start running, you were prompted to create a partnership with your mobile device. When you set up a partnership, you can select synchronization and file conversation settings, which are contained in a file on your desktop computer. This file enables your desktop computer to recognize your device. Only devices that have a partnership with a desktop computer can synchronize information between the two computers.

For more information on partnerships, please refer to your Microsoft ActiveSync

documentation or help file.

4.4. Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. 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 is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

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

Charpt 5. Appendix

5.1. Windows Core Version Support Item

The (x) of item on the table be supported by Microsoft Windows CE 5.0 core version.

APPLICATIONS AND SERVICES DEVELOPMENT	
Active Template Library (ATL)	x
C Libraries and Runtimes	x
C++ Runtime Support for Exception Handling and Runtime Type Information	x
Full C Runtime	x
Standard I/O (STDIO)	x
Standard I/O ASCII (STDIOA)	x
String Safe Utility Functions	x
Standard String Functions - ASCII (corestra)	x
Component Services (COM and DCOM)	x
Component Object Model	x
COM	x
CoCreateGuid functionality for OLE32	x
COM Storage	x
DCOM	x
COM Storage	x
DCOM Remote Access	x
Minimal COM (No OLE Support)	x
CoCreateGuid functionality for OLE32	x
COM Storage	x
Speech Interface	x
Speech API (SAPI) 5.0	x
Microsoft English (US) Windows CE Speech Recognizer (available in 4.2 only)*	
Lightweight Directory Access Protocol (LDAP) Client	x
Message Queuing (MSMQ)	x
SOAP Reliable Messaging Protocol (SRMP)	x
MSMQ ActiveX Wrappers	x
Microsoft Foundation Classes (MFC)	x
Object Exchange Protocol (OBEX)	x
OBEX Server	x
OBEX Inbox	x
OBEX File Browser	x
OBEX Client	x
Pocket Outlook Object Model (POOM) API	
SOAP Toolkit	x
Client	x
Server	x
Standard SDK for Windows CE	

.NET Compact Framework	x
OS Dependencies for .NET Compact Framework 1.0	x
Smart Device Authentication Utility	x
.NET Compact Framework 1.0	x
SQL Server CE 2.0 .NET Data Provider	x
SQL Server 2000 .NET Data Provider	x
SQL Server CE 2.0	x
XML	x
MSXML 3.0	x
XML Core Services and Document Object Model (DOM)	x
XML HTTP	x
XML Query Languages (XQL)	x
XML Stylesheet Language Transformations (XSLT)	x
XML SAX	x
XML Error Strings	x
XML Minimal Parser	x
Exchange Client	x
APPLICATIONS - END USER	
ActiveSync	
File Sync	x
Inbox Sync	
Pocket Outlook Database Sync	
CAB File Installer/Uninstaller	x
File Viewers*	
Microsoft Excel Viewer*	
Microsoft Image Viewer*	
Microsoft PDF Viewer*	
Microsoft PowerPoint Viewer*	
Microsoft Word Viewer*	
FLASH Update Sample Application	x
Games	x
Freecell	x
Solitaire	x
Help*	
Inbox	
Remote Desktop Connection	
Remote Desktop Protocol (RDP)	
User Interface Dialog Boxes	
Smart Card Redirection	
File Storage Redirection	
Filtered File Storage Redirection	
Cut/Copy/Paste Clipboard Redirection	
Serial and Parallel Port Redirection	
Audio Playback Redirection	
Printer Redirection	
Terminal Emulator	x
Windows Messenger	
WordPad	
CORE OS SERVICES	

Battery Driver	x
Display Support	x
Serial Port Support	x
Parallel Port Support	x
Internet Appliance (IABASE) Support	x
Notification LED Support	x
PNP Notifications	x
USB Host Support	x
USB Human Input Device (HID) Class Driver	x
USB HID Keyboard and Mouse	x
USB HID Keyboard Only	x
USB HID Mouse Only	x
USB Printer Class Driver	x
USB Storage Class Driver	x
USB Remote NDIS Class Driver	x
Debugging Tools	x
Keyboard Test Application	x
Touch Driver Test Application	x
Remote Display Application	x
Tiny Kernel Test Sample Application	x
Toolhelp API	x
LMemDebug Memory Debugging Hooks	x
Notification (Choose 1)	x
UI based Notification	x
Non UI based Notification	x
Power Management (Choose 1)	x
Power Management (Full)	x
Power Management (Minimal)	x
Device Manager	x
Kernel Features	x
Target Control Support (Shell.exe)	x
Fiber API	x
FormatMessage API	x
Memory Mapped Files	x
Message Queue - Point-to-Point	x
COMMUNICATIONS SERVICES AND NETWORKING	
Networking Features	x
Domain Discovery	x
Extended DNS Querying and Update (DNSAPI)	x
Secure DDNS	x
Extensible Authentication Protocol	x
Firewall	x
Internet Connection Sharing (ICS)	x
Gateway Logging	x
IPSec v4	x
NDIS Packet Capturing DLL	x
NDIS User-mode I/O Driver	x
Network Bridging	x
Network Driver Architecture (NDIS)	x

Network Utilities (IpConfig, Ping, Route)	x
Reference Gateway User Interface	x
Remote Configuration Framework	x
TCP/IP	x
IP Helper API	x
TCP/IPv6	x
Universal Plug and Play (UPnP)	x
Control Point API	x
Device Host API	x
Device Host API (Minimal Subset)	x
Sample UPnP IGD Schema Implementation	x
UPnP Tools	x
UPnP Audio-Video DCP	x
AV Control Point API	x
AV Device API	x
AV Renderer Sample	
USB Flash Config Tool	x
Windows Networking API/Redirector (SMB/CIFS)	x
Winsock Support	x
Networking - Local Area Network (LAN)	x
Native Wi-Fi WLAN Access Point Components	x
Native Wi-Fi WLAN STA	x
Wired Local Area Network (802.3, 802.5)	x
Wireless LAN (802.11) STA - Automatic Configuration and 802.1x	x
Networking - Personal Area Network (PAN)	x
Bluetooth	x
Bluetooth Protocol Stack with Transport Driver Support	x
Bluetooth Stack with Integrated CSR Chipset Driver	x
Bluetooth Stack with Universal Loadable Driver	x
Bluetooth Stack with Integrated SDIO Driver	x
Bluetooth Stack with Integrated USB Driver	x
Bluetooth Stack with Integrated UART Driver	x
Bluetooth Profiles Support	x
Bluetooth HS/HF and Audio Gateway Service	x
Bluetooth LAP and Configuration Utility	
Bluetooth DUN Gateway	x
Bluetooth PAN	x
Bluetooth HID Device Support	x
Bluetooth HID - Keyboard	x
Bluetooth HID - Mouse	x
IrDA	x
Networking - Wide Area Network (WAN)	x
Dial Up Networking (RAS/PPP)	x
AutoDial	x
Standard Modem Support for Dial Up Networking	x
Point-to-Point Protocol over Ethernet (PPPoE)	x
Telephony API (TAPI 2.0)	x
Unimodem support	x
Virtual Private Networking	x

PPTP	x
L2TP/IPSec	x
Servers	x
Core Server Support	x
FTP Server	x
File Server	x
File Server Customizable UI	x
Windows Peer-to-Peer Networking	x
Peer Name Resolution Protocol (PNRP)	x
Identity Manager	x
Print Server	x
RAS Server/PPTP Server (Incoming)	
Telnet Server	x
Web Server (HTTPD)	x
Active Server Pages (ASP) Support	x
JScript 5.6	x
VBScript 5.6	x
Device Management ISAPI Extension	x
WebDAV Support	x
Web Server Administration ISAPI	x
Web Proxy	x
Parental Controls	x
Simple Network Time Protocol (SNTP)	x
SNTP Server	x
SNTP Client with DST	x
SNTP Automatic Updates and Server Synchronization	x
DEVICE MANAGEMENT	
Device Management Client	x
Simple Network Management Protocol (SNMP)	x
FILE SYSTEMS AND DATA STORE	
Compression	x
Database Support	x
File and Database Replication (Choose 1)	x
Bit-based	x
Count-Based	x
File System - Internal (Choose 1)	x
RAM and ROM File System	x
ROM-only File System	x
Registry Storage (Choose 1)	x
Hive-based Registry	x
RAM-based Registry	x
Storage Manager	x
Binary Rom Image File System	x
Storage Manager Control Panel Applet	x
EDB Database Engine	x
Partition Driver	x
CD/UDFS File System	x
FAT File System	x
Transaction-Safe FAT File System (TFAT)	x

System Password	x
FONTS	
Arial	x
Arial (Subset 1_30)	x
Arial Black	x
Arial Bold	x
Arial Bold Italic	x
Arial Italic	x
Comic Sans MS	x
Comic Sans MS	x
Comic Sans MS Bold	x
Courier New	x
Courier New (Subset 1_30)	x
Courier New Bold	x
Courier New Bold Italic	x
Courier New Italic	x
Georgia	x
Georgia	x
Georgia Bold	x
Georgia Bold Italic	x
Georgia Italic	x
Impact	x
Kino	x
MSLogo	x
Symbol	x
Tahoma	x
Tahoma (Subset 1_07)	x
Tahoma Bold	x
Times New Roman	x
Times New Roman (Subset 1_30)	x
Times New Roman Bold	x
Times New Roman Bold Italic	x
Times New Roman Italic	x
Trebuchet MS	x
Trebuchet MS	x
Trebuchet MS Bold	x
Trebuchet MS Bold Italic	x
Trebuchet MS Italic	x
Verdana	x
Verdana	x
Verdana Bold	x
Verdana Bold Italic	x
Verdana Italic	x
Webdings	x
Wingding	x
INTERNATIONAL	
Input Method Manager (IMM)	x
Locale Services (Choose 1)	x
National Language Support (NLS)	x

English (US) National Language Support only	x
Locale Specific Support	x
Arabic	x
Fonts	x
Tahoma (subset 1_08)	x
Tahoma Bold (subset 1_08)	x
Arial (subset 1_08)	x
Arial Bold (subset 1_08)	x
Courier New (subset 1_08)	x
Keyboard	x
Arabic Keyboard (101)	x
Chinese (Simplified)	x
Agfa AC3 Font Compression	x
Fonts	x
SimSun & NSimSun (Choose 1)	x
SimSun & NSimSun	x
SimSun & NSimSun (Subset 2_20)	x
SimSun & NSimSun (Subset 2_50)	x
SimSun & NSimSun (Subset 2_60)	x
SimSun & NSimSun (Subset 2_70)	x
SimSun & NSimSun (Subset 2_80)	x
SimSun & NSimSun (Subset 2_90)	x
SC_Song	x
GB18030 Data Converter	x
Input Method Editor (Choose 1)	x
MSPY 3.0 for Windows CE	x
MSPY 3.0 for Windows CE Database (Choose 1)	x
1.1 MB - Minimal Database	x
1.3 MB - Compact Database	x
1.7 MB - Standard Database	x
Double Spelling (Shuang Pin) soft keyboard - Large	x
Double Spelling (Shuang Pin) soft keyboard - Small	x
Pocket IME	x
Double Spelling (Shuang Pin) soft keyboard - Small	x
Chinese (Traditional)	x
Agfa AC3 Font Compression	x
Fonts	x
MingLiU & PMingLiU (Choose 1)	x
MingLiU & PMingLiU	x
MingLiU & PMingLiU (Subset 2_70)	x
MingLiU & PMingLiU (Subset 2_80)	x
MingLiU & PMingLiU (Subset 2_90)	x
MS Ming	x
Input Method Editor	x
Pocket IME	x
Input Methods	x
Input by Radical (Chang Jei)	x
Handwriting Recognizer Engine (HWX)	
MboxCHT HWX Sample UI	

Phonetic Input (Bopomofo)	x
English (Worldwide)	x
Input Methods	x
Handwriting Recognizer Engine (HWX)	
English (U.S.)	x
Input Methods	x
Transcriber Handwriting Recognition Application	
French	x
Input Methods	x
Transcriber Handwriting Recognition Application	
German	x
Input Methods	x
Transcriber Handwriting Recognition Application	
Hebrew	x
Fonts	x
Tahoma (subset 1_08)	x
Arial (subset 1_08)	x
Tahoma Bold (subset 1_08)	x
Arial Bold (subset 1_08)	x
Courier New (subset 1_08)	x
Keyboard	x
Hebrew Keyboard	x
Indic	x
Hindi	x
Fonts	x
Mangal	x
Keyboard	x
Hindi Traditional Keyboard	x
Marathi	x
Fonts	x
Mangal	x
Keyboard	x
Marathi Keyboard	x
Punjabi	x
Fonts	x
Raavi	x
Keyboard	x
Punjabi Keyboard	x
Telugu	x
Fonts	x
Gautami	x
Keyboard	x
Telugu Keyboard	x
Gujarati	x
Fonts	x
Shruti	x
Keyboard	x
Gujarati Keyboard	x
Kannada	x

Fonts	x
Tunga	x
Keyboard	x
Kannada Keyboard	x
Tamil	x
Fonts	x
Latha	x
Keyboard	x
Tamil Keyboard	x
Japanese	x
Agfa AC3 Font Compression	x
Fonts	x
MS Gothic (Choose 1)	x
MS Gothic & MS PGothic & MS UI Gothic	x
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_50)	x
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_60)	x
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_80)	x
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_90)	x
MS Gothic & MS PGothic & MS UI Gothic (Subset 1_70)	x
MS Gothic & MS PGothic (Subset 30)	x
MS Gothic & MS PGothic (Subset 30_1_19)	x
MS Mincho & MS PMincho	x
Input Method Editor (Choose 1)	x
IME 3.1	x
IME 3.1 Database (Choose 1)	x
Standard Database	x
Compact Database	x
Optional UI Components	x
Dictionary Tool	x
Properties Dialog Box	x
Advanced Settings Dialog Box (Landscape mode only)	x
System Tray Icon Manager	x
Pocket IME (Choose Additional Databases)	x
Name/Place Database	x
Supplemental Database	x
Test IME	x
Input Methods	x
All Characters List	x
Handwriting Recognizer Engine (HWX)	
Character Auto Complete - HWX Sample UI	
Multibox HWX Sample UI	
Kana Soft Keyboard	x
Romaji/English Soft Keyboard	x
Search by Radical	x
Search by Stroke	x
Korean	x
Agfa AC3 Font Compression	x
Fonts	x
Gulim (GL_CE)	x

Gulim & GulimChe (Choose 1)	x
Gulim & GulimChe (Subset 1_30)	x
Gulim & GulimChe (Subset 1_40)	x
Gulim & GulimChe (Subset 1_50)	x
Gulim & GulimChe (Subset 1_60)	x
Input Method Editor	x
IME 97	x
Input Methods	x
Handwriting Recognizer Engine (HWX)	
MboxKOR HWX Sample UI	
Korean Soft Keyboard Sample	x
Thai	x
Fonts	x
Tahoma (subset 1_08)	x
Keyboard	x
Thai Kedmanee Keyboard	x
Multilingual User Interface (MUI)	x
Unicode Script Processor for Complex Scripts	x
Internet Client Services	x
Browser Application	
Internet Explorer 6.0 for Windows CE - Standard Components	
Internet Explorer 6.0 Sample Browser	
TV-Style Navigation Components	
Pocket Internet Explorer	
Internet Explorer 6.0 for Windows CE Components	
Internet Explorer Browser Control Host	
Internet Explorer HTML/DHTML API	
Internet Explorer HTML Application	
Filter and Translation	
Internet Explorer Plug-in Image Decoder API	
Internet Explorer PNG Image Decoder	
Internet Explorer Theme Library	
Internet Explorer Multiple-Language Base API	x
Internet Explorer Multiple-Language Full API	
Optional Charset/Encoding in registry	
Internet Explorer RPC Support	
Internet Explorer TV-Style Navigation	
Fixed-Width Layout	
Directional Tabbing	
Disable Vertical Scroll Bar and Events	
Customizable Font Range	
URL Moniker Services	x
Windows Internet Services	x
Passport SSI 1.4 Authentication	x
Platform for Privacy Preferences (P3P)	x
XML Data Islands	x
XML MIME Viewer	x
Pocket Internet Explorer HTML View (WEBVIEW)	
Internet Options Control Panel	

Scripting	x
JScript 5.6	x
Script Authoring (Jscript)	x
Script Encode (Jscript)	x
VBScript 5.6	x
Script Authoring (VBScript)	x
Script Encode (VBScript)	x
MsgBox and InputBox support	x
GRAPHICS AND MULTIMEDIA TECHNOLOGIES	
Graphics	x
Raster Fonts Support	x
V1 Font Compatibility	x
AlphaBlend API (GDI version)	x
Gradient Fill Support	x
Multiple Monitor Support	x
Imaging	x
Still Image Codec Support (Encode and Decode)	x
Still Image Decoders	x
PNG Decoder	x
BMP Decoder	x
GIF Decoder	x
ICO Decoder	x
JPG Decoder	x
Still Image Encoders	x
GIF Encoder	x
BMP Encoder	x
JPG Encoder	x
PNG Encoder	x
Direct3D Mobile	x
DirectDraw	x
Audio	x
Audio Compression Manager	x
GSM 6.10 Codec	x
MSFilter Codec	x
Waveform Audio	x
Media	x
Streaming Media Playback (requires WMP application)	
WMA and MP3 Local Playback	x
WMA and MP3 Streaming (requires WMP application)	
Digital Rights Management	x
Digital Rights Management (DRM)	x
DRM for Portable Devices	x
DRM License Acquisition OCX	x
DirectShow	x
DirectShow Core	x
DirectShow Display	x
DirectShow Error Messages	x
DMO Wrapper Filter	x
ACM Wrapper Filter	x

Media Formats	x
AVI Filter	x
MPEG-1 Parser/Splitter	x
Audio Codecs and Renderers	x
G.711 Audio Codec	x
GSM 6.10 Audio Codec	x
IMA ADPCM Audio Codec	x
MP3 Codec	x
MPEG-1 Layer 1 and 2 Audio Codec	x
MS ADPCM Audio Codec	x
Waveform Audio Renderer	x
WMA Codec	x
WMA Voice Codec	x
Wave/AIFF/au/snd File Parser	x
Video Codecs and Renderers	x
DirectShow Video Renderer	x
MPEG-1 Video Codec	x
MS RLE Video Codec	x
Overlay Mixer	x
Video/Image Compression Manager	x
WMV/MPEG-4 Video Codec	x
DVD-Video	x
DVD-Video	x
DVD-Video Samples	x
Windows Media Player	
Windows Media Player	
Windows Media Player OCX	
Windows Media Technologies	x
ASX v1 and M3U File Support	x
ASX v2 File Support	x
ASX v3 File Support	x
Windows Media Multicast and Multi-Bit Rate	x
NSC File Support	x
Windows Media Streaming from Local Storage	x
Windows Media Streaming over HTTP	x
Windows Media Streaming over MMS	x
SECURITY	
Authentication Services (SSPI)	x
NTLM	x
Kerberos	x
Schannel (SSL/TLS)	x
Cryptography Services (CryptoAPI 1.0) with High Encryption Provider	x
Certificates (CryptoAPI 2.0)	x
Cryptographic Messaging (PKCS#7)	x
Personal Information Exchange Standard (PKCS #12)	x
Diffie-Hellman/DSS Provider	x
Smart Card Encryption Provider	x
Local Authentication Sub-System	x
Password Local Authentication Plug-in	x

Microsoft Certificate Enrollment Tool Sample	x
Credential Manager	x
SHELL AND USER INTERFACE	
Graphics, Windowing and Events	x
Minimal GWES Configuration	x
Minimal GDI Configuration	x
Minimal Input Configuration	x
Minimal Window Manager Configuration	x
Shell	
Graphical Shell (Choose 1)	
Standard Shell	x
Windows Thin Client Shell	
AYGShell API Set	
Command Shell	x
Console Window	x
Command Processor	x
User Interface	x
Accessibility	x
Common Dialog Support	x
Controls Option B	x
Control Panel Applets	x
Customizable UI	x
Windows XP-like Sample Skin	x
Menu Tool Tip	x
Mouse	x
Network User Interface	x
Overlapping Menus	x
Software Input Panel	x
Software-based Input Panel Driver	x
Software-based Input Panel (SIP) (Choose 1 or more)	x
SIP for Small Screens	x
SIP for Large Screens	x
Touch Screen (Stylus)	x
Quarter VGA Resources - Portrait Mode	x
Common Controls	x
Animation Control	x
Common Control	x
Windows CE Error Reporting	x
Error Report Generator	x
Report Upload Client	x
Report Upload Client User Interface	x
Error Report Transfer Driver	x
Error Reporting Control Panel	x
VOICE OVER IP PHONE SERVICES	
Phone IME	x
PC Authentication	x
Telephony User Interface	x
VoIP Application Interface Layer (VAIL)	x
VAIL Database Store	x

Phone Provisioner	x
Reference Media Manager	x
Real-time Communications (RTC) Client API	x
SIREN/G.722.1 Codecs	x

5.2. AIM Code Identifiers of Symbol SE955

Each AIM Code identifier contains the three-character string]cm where:

] = Flag Character(ASCII 93)

c = Code Character (See as follow)

A: Code39

C: Code 128

E: UPC/EAN

F: Codabar

G: Code93

H: Code11

I : Interleaved 2 of 5

M: MSI

S : D2 of 5, IATA 2 of 5

X: code39 Trioptic , Bookland EAN

e: RSS

m = Modifier Character(See as follow table)

The modifier character is the sum of the applicable option values based on the following tables.

Code Type	Option Value	Option
Code39		
	0	No Check character of Full ASCII processing
	1	Reader has checked one check character.
	3	Reader has checked and stripped check character.
	4	Reader has performed FULL ASCII character conversion.
	5	Reader has performed FULL ASCII character conversion and checked one check character.
	7	Reader has performed FULL ASCII character conversion and checked and stripped check character.
	Example: A Full ASCII bar code with check character W, A+I+MI+DW, is transmitted as]A7 Aim Id where 7=(3+4)	
Trioptic Code 39		
	0	No option specified at this time, Always transmit 0.
	Example: A trioptic bar code 412356 is transmitted as]X0412356	
Code 128		
	0	Standard data packet, No Function code 1 in first symbol position.
	1	Function code 1 in first symbol character position.
	2	Function code 1 in second symbol character position.

	Example: A Code(EAN) 128 bar code with Function 1 character in the first position, ^{FNC1} Aim Id is transmitted as]C1 AimId.	
I 2 of 5		
	0	No Check digit processing.
	1	Reader has validated check digit.
	3	Reader has validated and stripped check digit.
	Example: An I 2 Of 5 bar code without check digit, 4123, is transmitted as]I04123	
Codabar		
	0	No check digit processing.
	1	Reader has checked digit
	Example: A Codabar bar code without check digit, 4123, is transmitted as]F04123	
Code 93		
	0	No options specified at this time, Always transmit 0.
	Example: A Code 93 bar code 012345678905 is transmitted as]G0012345678905.	
MSI		
	0	Mod 10 check digit checked and transmitted.
	1	Mod 10 check digit checked but not transmitted
	Example: An MSI bar code 4123, with a single check digit checked, is transmitted as]M04123.	
D 2 of 5		
	0	No options specified at this time, Always transmit 0.
	Example: A D2 of 5 bar code 4123, is transmitted as]S04123.	
UPC/EAN		
	0	Standard packet in full EAN country code format, which is 13 digits for UPC-A and UPC-E(not including supplemental data).
	1	Two digit supplement data only.
	2	Five digit supplement data only.
	4	EAN-8 data packet.
	Example: A UPC-A bar code 012345678905 is transmitted as]E00012345678905	
Bookland EAN		
	0	No options specified at this time, Always transmit 0.
	Example: A Bookland EAN bar code 123456789X is transmitted as]X0123456789X	

According to AIM standard, a UPC with supplemental bar code is transmitted in the following Format:

]E0(UPC chars)(terminator)]E2(supplemental)(terminator)

In the SE-955, however, the format is changed to:

]E0(UPC chars)]E2(supplemental)

Therefore, a UPC with two supplemental characters, 01234567890510, is transmitted to the host as a 21-character string,]E00012345678905]E110.