

**DENSO**  
DENSO WAVE

HANDHELD TERMINAL  
**BHT-1400**  
SERIES



- LARGE SCREEN
- DURABILITY
- SINGLE-HANDED OPERATION



[Full size]  
\* Conceptual image

# Large screen. Durable body. Single-handed operation.

The functionality of the BHT series is further enhanced.

Windows® Embedded Compact 7-based

**3.2-inch**  
High-definition  
Large liquid  
crystal display

Environment  
resistance  
**IP65 rated**

Ergonomic  
design perfect  
for  
single-handed  
operation



## Designed to deliver maximum productivity from your field force

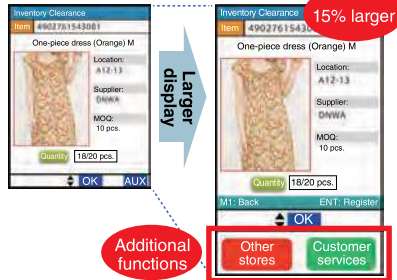
### The 3.2-inch WVGA large screen enables easy operation

The high resolution BHT-1400 display ensures crystal clear visibility of your applications whether indoors or outdoors in bright sunlight.



<2.4-inch QVGA>  
240 x 320 dots

<3.2-inch WVGA>  
480 x 800 dots



Characters are 15 percent larger than those on a 2.4-inch display.

With a WVGA (480 x 800), new functions are added to an extended area.

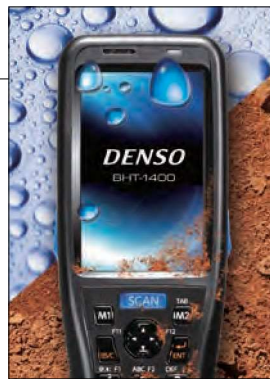
<QVGA>  
**DENSO**  
High definition  
↓  
<WVGA>  
**DENSO**  
High definition

Even characters of the same size can be shown more clearly.

Resolution  
**4** times higher

### Operates in any environment IP65 rated

The BHT-1400 series has an IP65 rating and so can be relied upon to perform well even in the harshest of operational environments.



### Ergonomic design facilitates easy single-handed operation

The BHT-1400 series is designed under the concept of "large screen model perfect for single-handed operation." The construction in the center of the grip makes it easier to hold and at the same time enables easy one-thumb operation. To further improve single handed operability, this product also has a nonslip grip for greater control.



### Highly durable, impact-resistant design

Durable polycarbonate is used for the BHT-1400 series to achieve best-in-class impact resistance. The BHT-1400 is designed to resist multiple drops during daily operations giving operators peace of mind about integrity of the product.



### Extended operational capability from improved power save features

The unique power saving design enables continuous operation for up to 32 hours even when the wireless function is always enabled. This reduces the need for frequent charging and minimizes operational downtime.



### High-performance scanning brought to you exclusively by the manufacturer that developed the QR Code®

A powerful reading algorithm, created exclusively by the manufacturer that developed the QR Code enables high-performance reliable scanning that contributes to improvements in efficiency and productivity.



## Support that provides peace of mind

### Remote desktop and web browser reduce development resource requirements

The remote desktop plug-in and web browser plug-in enable thin client implementation with lower development costs. They not only eliminate the need to develop applications for each device and thereby significantly reduce the time required for development, but also offer more advantages. Development with general-purpose languages such as HTML and JavaScript is possible, and it is not necessary for each device to update data. Since the device itself does not contain any data, there are no security concerns.



### Overseas on-site maintenance with "Global Support Service"

DENSO WAVE offers a Global Support Service, through which customers can receive on-site support locally. This ensures that, no matter where sourced, product returned for repair is handled expeditiously to minimize downtime.

\* Prior application is required.

### 3-year warranty provides peace of mind

DENSO WAVE provides a three-year warranty to customers who have registered on its website, giving peace of mind. Our customer service personnel and sales representatives quickly respond to any issue our customers may experience including device failures and make every effort to ensure that customers can use DENSO WAVE's handheld terminals with confidence.



## BHT-1400 series specification

		2D code model BHT-1461QWB-CE	Barcode model BHT-1461BWB-CE	
OS		Windows Embedded Compact 7		
CPU		ARM Cortex-A8 800 MHz		
Memory		2.0 GB (1.2 GB for user area)		
Display	Size / No. of dots <sup>1</sup>	3.2 inch WVGA (480x800 dots)		
	Display device	Liquid crystal dot matrix display (color)		
	Back light	White LED		
Scanner	Mode	Area sensor	Advanced scan plus (CCD)	
	Decode	2D code	QR code, micro QR code, SQRC, iQR code, PDF417, micro PDF417, Maxi code, DataMatrix (ECC200), GS1 Composite	
		Barcode	EAN-13/8 (JAN-13/8), UPC-A/E, UPC/EAN (Add-on embedded), Interleaved 2 of 5 (ITF), Standard 2 of 5 (STF), CODABAR (NW-7), CODE39, CODE93, CODE128, GS1-128 (EAN-128), GS1 Databar (RSS)	
	Minimum resolution	2D code	0.167 mm	—
		Barcode	—	0.125 mm
	Reading reference position	100 mm	—	110 mm
Maker	Area guide maker	—	—	
Scan Confirmation		LED in two colors: Blue/red, speaker, vibrator		
Keypad	Number of keys	21 keys (including power key) + cross cursor key + 3 trigger keys		
Touch panel		Resistive; working load: 1 N		
Communication	Wireless LAN <sup>2</sup>	Standard	IEEE.802.11b/g/n compliant	
		Frequency Band	IEEE802.11n: 5.2 GHz, 5.3 GHz, 5.6 GHz band, IEEE802.11b/g/n: 2.4 GHz band	
		Communication distance <sup>3</sup>	IEEE802.11n: indoors = approx. 50 m, IEEE802.11b/g/n: indoors = approx. 75 m, outdoors = approx. 200 m	
		Transmission speed <sup>3</sup>	IEEE802.11b: 11/5.5/2/1Mbps, IEEE802.11g: 54/48/36/24/18/12/9/6Mbps, IEEE802.11n: 65/58.5/52/39/26/19.5/13/6.5Mbps	
		Access method	Infrastructure mode	
		Security	WEP40, 128, WPA-PSK (TKIP, AES), WPA2-PSK (TKIP, AES), WPA-1x (TKIP, AES/EAP-TLS, PEAP, LEAP, EAP-FAST), WPA2-1x (TKIP, AES/EAP-TLS, PEAP, LEAP, EAP-FAST), 802.1x (WEP/EAP-TLS, PEAP, LEAP, EAP-FAST)	
	Bluetooth	Bluetooth Ver. 2.1 + EDR based class 2		
Card slot	MicroSD or MicroSDHC (up to 32 GB)x1(FAT32 compliant)			
Power	Main battery	Lithium-ion battery		
	Operating time <sup>4</sup>	35 hours <sup>5</sup> /32 hours <sup>6</sup>	36 hours <sup>5</sup> /30 hours <sup>6</sup>	
Additional functionality		Clock, speaker, vibrator, battery and voltage indicators, keypad backlight		
Environmental performance	Operating temperature	-20 to 50°C <sup>7</sup>		
	Security level	IP65		
	Drop resistance <sup>8</sup>	Dropped from 2.0 m/1.5 m above concrete floor, on all 6 faces, 10 times each (total 60 times)		
Mass (including battery)		Approx. 255 g		

<sup>1</sup> Although the effective number of picture elements is more than 99.99% thanks to high-precision technologies used to manufacture LCDs, allow the possibility of some elements, less than 0.01%, that are missing or permanently turned on; <sup>2</sup> IEEE802.11n/5.2GHz (W52) and 5.3GHz (W53) are for indoor use only. <sup>3</sup> The communication distance shown is a reference value, and it may vary accordingly, depending on the actual environmental conditions. The transmission speed shown is a logical variable only, not the guaranteed value. <sup>4</sup> The described operating time is a reference figure under regular temperatures and may vary depending on usage conditions; <sup>5</sup> Scanning every 5 seconds. Backlight level 1. <sup>6</sup> When the ratio of reading, wireless communication, screen rewriting and holding durations are 1:1:1:20 under continued wireless operation and backlight level 1. <sup>7</sup> Zero to 40°C when batteries are being recharged; <sup>8</sup> Result obtained in a test under regular temperature is shown and not meant as a guarantee.

## Option (sold separately)

### Holder, which performs data communication with BHT communication unit and the up-level device

- CU-AR1-14 (RS-232C communications + recharging) • CU-AL1-14 (Ethernet communications + recharging)
- CU-AU1-14 (USB communications + recharging)

		CU-AR1-14	CU-AL1-14	CU-AU1-14
Between BHT and host	Communication mode	RS-232C	Ethernet (100BASE-TX)	USB2.1 Full Speed compatible
Charging unit	Battery charge time	Approx. 3 hours	Approx. 3 hours	Approx. 12 hours <sup>1</sup>
Size (mm)		110(D)x95(W)x109(H)		
Working voltage		AC adapter <sup>2</sup>		Supplied from USB port/AC adapter <sup>2</sup>

<sup>1</sup> Charge time may vary according to the power supply capability of the connected device. Charge time is 3 hours when using the AC adapter. <sup>2</sup> The AC adapter is sold separately.

### Batteries

- BT-140LA-C (battery+battery cover)
- BT-110LA (battery only)

### Charger

- CH-1104 (4 serial battery chargers)
- CH-A4-14 (4 serial unit chargers) (To be released)

### Soft case and others

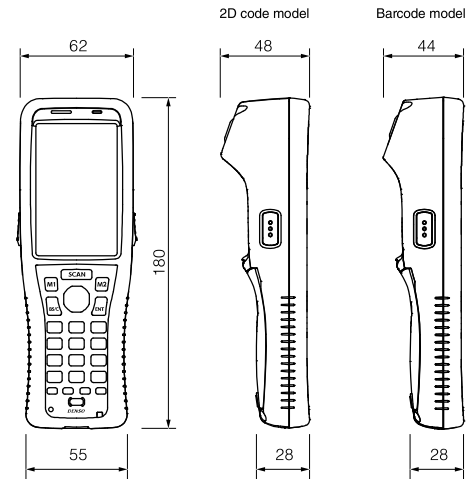
- SCBHT-1400 (soft case)
- WHBHT-1400 (waist case)
- NSBHT-1300 (neck strap)

## Components

- ☒ Hand strap with stylus ☒ Guidelines for operation ☒ Instruction manual  \* Battery and battery cover are not supplied with the product.


## Dimensions

Unit: mm (for reference only)



## Software


### Development tools

- Windows Embedded Compact 7-based Software Development Kit for BHT\* (SDK) 

\* This application software can be downloaded from our dedicated customer site only by customers who purchased Windows-based BHT.

### Preinstalled software

- Keyboard interface application software [kbifCE]
- Launcher [Application Launcher]
- Wireless setting tool [WLAN Manager]
- Back-up tool [BHT Backup]
- Cloning tool [BHT Clone]

 Items with this mark are available from the company's homepage (QDirect) free of charge.

