

# DENSO

Member of the TOYOTA Group

HANDHELD TERMINAL

# BHT-1400

SERIES



LARGE SCREEN

DURABILITY

SINGLE-HANDED OPERATION



  
Windows  
Embedded CE



[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**

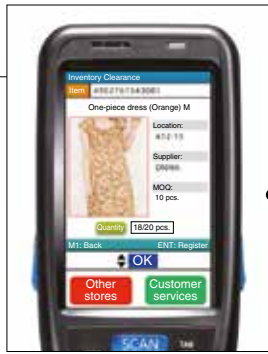
Ergonomic  
design perfect  
for  
single-handed  
operation



## Designed to deliver maximum productivity from your field force

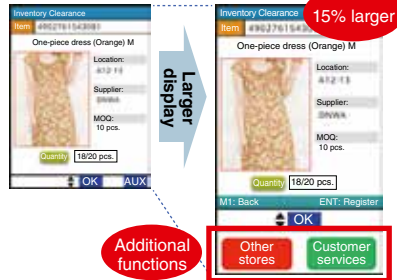
### The 3.2-inch WVGA large screen enables easy operation

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

| Type                      |  | 2D code model  | Barcode model   |   |
|---------------------------|--|--|---|---|
|                           |  | BHT-1461QWB-CE   | 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   |   |   |
|                           | 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   | IEEE802.11b/g/n compliant   |   |
|                           |  | Frequency Band   | 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)×1(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  |  |   |   |

\*1 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; \*2 IEEE802.11n/5.2GHz (W52) and 5.3GHz (W53) are for indoor use only; \*3 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; \*4 The described operating time is a reference figure under regular temperatures and may vary depending on usage conditions; \*5 Scanning every 5 seconds. Backlight level 1; \*6 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; \*7 Zero to 40°C when batteries are being recharged; \*8 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)×95(W)×109(H)     |                       |  |
| Working voltage      |                     | AC adapter <sup>2</sup> |                       | Supplied from USB port/AC adapter <sup>2</sup> |

\*1 Charge time may vary according to the power supply capability of the connected device. Charge time is 3 hours when using the AC adapter. \*2 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

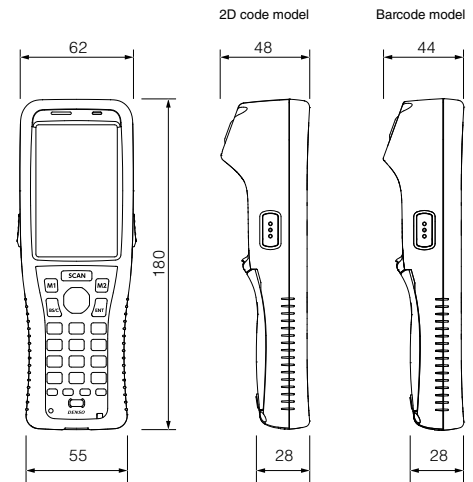
- SCBHT-1400 (soft case)
- WHBHT-1400 (waist case)
- NSBHT-1300 (neck strap)

## Components

- Hand strap with stylus ● Guidelines for operation ● Instruction manual [HP](#) \* 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) [HP](#)

\* 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 [kbitCE]
- 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 (QBdirect) free of charge.

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### To use this product safely

- Before using this product, please read its User's Manual thoroughly for correct use.

● Appearance and specifications are subject to change without prior notice. ● Description stated in this catalogue is as of July, 2015.