Supports any system.

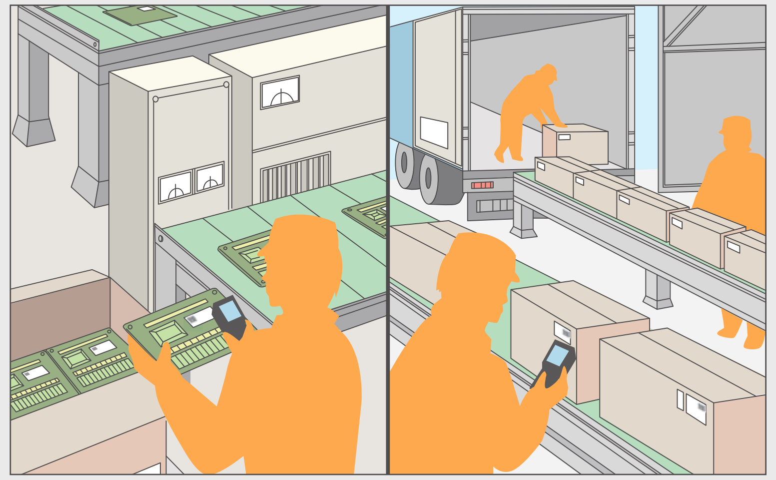
Applications for BHT-1300 series

In retail/wholesale fields

- It can be held comfortably even by women, and its aesthetics enable it to fit in anywhere with style.
- Thanks to its 360° reading capability, inventory time can be drastically cut.

In distribution/manufacturing fields

- Round-the-clock use of the model, which is compliant with IEEE 802.11 b/g/n, is possible while it is operated online.
- The model's robust durability ensures accurate use in tough work environments with peace of mind.



DENSO WAVE Quality

Why are DENSO WAVE's products chosen over others?

Rich experience Pioneering company, established in 1978, in the automatic recognition field whose products boast the No. 1 spot for the number of units in use.

Reliable, integrated production system DENSO WAVE is engaged in every aspect of a product, its development, production, marketing and maintenance.

Long-term support Even after sales end, 5-year support is guaranteed.

Superior engineering prowess DENSO WAVE is the company that developed QR Code, used all over the world.

BHT-1300 series specification

Type			2D code model				Barcode model			
			BHT-1361Q-CE	BHT-1361QWB-CE	BHT-1306Q	BHT-1306QWB	BHT-1361B-CE	BHT-1361BWB-CE	BHT-1306B	BHT-1306BWB
OS			Windows Embedded Compact 7		BHT-OS		Windows Embedded Compact 7		BHT-OS	
CPU			ARM Cortex-A8 800 MHz		32-bit RISC microprocessor		ARM Cortex-A8 800 MHz		32-bit RISC microprocessor	
Memory	Flash ROM*1		2.0 GB (1.2 GB for user area)		64 MB (45 MB for user area)		2.0 GB (1.2 GB for user area)		64 MB (45 MB for user area)	
Display	Number of Dots*2		2.4 inch QVGA (240×320 dots)							
	Display device		Liquid crystal dot matrix display (color)							
	Displayable characters*3	16-dot font	Can be set as required in the application.		15 (2-byte characters) x 20 rows, 30 (1-byte characters) x 20 rows		Can be set as required in the application.		15 (2-byte characters) x 20 rows, 30 (1-byte characters) x 20 rows	
		24-dot font			10 (2-byte characters) x 13 rows, 20 (1-byte characters) x 13 rows				10 (2-byte characters) x 13 rows, 20 (1-byte characters) x 13 rows	
	Back light		White LED							
Scanner	Mode		Area sensor				Advanced scan plus (CCD)			
	Decode	2D code	QR code, micro QR code, SQRC iQR, PDF417, micro PDF417, Maxi code, DataMatrix (ECC200), GS1 DataBar Composite (EAN.UCC 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				50 mm			
	Maker		Area guide maker				–			
	Scan Confirmation		LED in two colors: Blue/red, speaker, vibrator		LED in three colors: Blue/red/green, speaker, vibrator		LED in two colors: Blue/red, speaker, vibrator		LED in three colors: Blue/red/green, speaker, vibrator	
Key input section	Number of keys		21 keys (including power key) + cross cursor key + 3 trigger keys*4							
Communication	Optical I/F	Communication mode	–		Infrared ray (IrDA Ver. 1.2[low power]physical signaling layer-compliant)		–		Infrared ray (IrDA Ver. 1.2[low power]physical signaling layer-compliant)	
		Transmission speed	–		Up to 115.2 kbps, 460.8 kbps		–		Up to 115.2 kbps, 460.8 kbps	
		Communication distance	–		Approximately 0.15 m MAX.		–		Approximately 0.15 m MAX.	
	Wireless LAN	Suitable standard	–	IEEE.802.11b/g/n compliant	–	IEEE.802.11b/g/n compliant	–	IEEE.802.11b/g/n compliant	–	IEEE.802.11b/g/n compliant
		Frequency	–	2.4 GHz band	–	2.4 GHz band	–	2.4 GHz band	–	2.4 GHz band
		Communication distance*5	–	Approx. 75 m indoors, approx. 200 m outdoors	–	Approx. 75 m indoors, approx. 200 m outdoors	–	Approx. 75 m indoors, approx. 200 m outdoors	–	Approx. 75 m indoors, approx. 200 m outdoors
		Transmission speed*5	–	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	–	IEEE802.11b:11/5.5/2/1 Mbp, IEEE802.11g:54/48/36/24/18/12/9/6Mbps, IEEE802.11n:65/58.5/52/ 39/26/19.5/13/6.5Mbps	–	IEEE802.11b:11/5.5/2/1Mbps, IEEE802.11 g:54/48/36/24/18/12/9/6Mbps, IEEE802.11n:65/58.5/52/ 39/26/19.5/13/6.5Mbps	–	IEEE802.11b:11/5.5/2/1Mbps, IEEE802.11 g: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	–	Infrastructure mode, ad-hoc mode	–	Infrastructure mode	–	Infrastructure mode, ad-hoc mode
		Security	–	WEP40, 128,WPA-PSK(TKIP,AES), WPA2-PSK(TKIP,AES), WPA-1x(TKIP,AES/EAP-TLS, PEAP,LEAP,EAP-FAST), WPA-2x(TKIP,AES/EAP-TLS, PEAP,LEAP,EAP-FAST), 802.1x(WEP/EAP-TLS, PEAP,LEAP,EAP-FAST)	–	WEP40/128, WPA-PSK(TKIP), WPA2-PSK(AES), WPA-1x(TKIP/EAP-TLS,PEAP), WPA2-1x(AES/EAP-TLS,PEAP), 802.1x(EAP-TLS,PEAP)	–	WEP40, 128,WPA-PSK(TKIP,AES), WPA2-PSK(TKIP,AES), WPA-1x(TKIP,AES/EAP-TLS, PEAP,LEAP,EAP-FAST), WPA-2x(TKIP,AES/EAP-TLS, PEAP,LEAP,EAP-FAST), 802.1x(WEP/EAP-TLS, PEAP,LEAP,EAP-FAST)	–	WEP40/128, WPA-PSK(TKIP), WPA2-PSK(AES), WPA-1x(TKIP/EAP-TLS,PEAP), WPA2-1x(AES/EAP-TLS,PEAP), 802.1x(EAP-TLS,PEAP)
	Bluetooth		–	Bluetooth Ver. 2.1 + EDR based class 2	–	Bluetooth Ver. 2.1 + EDR based class 2	–	Bluetooth Ver. 2.1 + EDR based class 2	–	Bluetooth Ver. 2.1 + EDR based class 2
	Cable I/F		–		USB Ver. 2.0 (USB microB)		–		USB Ver. 2.0 (USB microB)	
Card slot			MicroSD or MicroSDHC (up to 32 GB)×1(FAT32 compliant)							
Additional functionality			Clock, speaker, vibrator, battery and voltage indicators, keypad backlight		Clock, speaker, vibrator, battery and voltage indicators, keypad backlight, remote wakeup		Clock, speaker, vibrator, battery and voltage indicators, keypad backlight		Clock, speaker, vibrator, battery and voltage indicators, keypad backlight, remote wakeup	
Environmental performance	Operating temperature		-20 to 50°C*6							
	Security level		IP54							
	Drop resistance*7		10 times of dropping tests from 2.0/1.2 m height over a concrete floor with each of 6 sides of the enclosure facing down (60 times total)							
Mass			Approx. 193 g (with thin battery mouted), approx. 211 g (with standard battery mounted)		Approx. 188 g (with thin battery mouted), approx. 206 g (with standard battery mounted)		Approx. 193 g (with thin battery mouted), approx. 211 g (with standard battery mounted)		Approx. 188 g (with thin battery mouted), approx. 206 g (with standard battery mounted)	

*1 Memory (about 400 KB) for font file area included in the user area; *2 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; *3 For BHT-OS model, the standard font, the small font, the 30-dot font and the 40-dot font can be set in addition to the 16-dot font and the 24-dot font; *4 Windows-OS model and BHT-OS model differ in key layout and allocation; *5 The listed figures for communication distance and speed are theoretically possible figures and may very depending on the work environment where the unit is used; *6 Zero to 40°C when batteries are being recharged; *7 Result obtained in a test under regular temperature is shown and not meant as a guarantee.

Power supply specifications

Type			2D code model				Barcode model			
			BHT-1361Q-CE	BHT-1361QWB-CE	BHT-1306Q	BHT-1306QWB	BHT-1361B-CE	BHT-1361BWB-CE	BHT-1306B	BHT-1306BWB
Power	Main battery		Lithium-ion battery		Lithium-ion battery or 3 AAA alkaline batteries (separately sold battery adapter required)		Lithium-ion battery		Lithium-ion battery or 3 AAA alkaline batteries (separately sold battery adapter required)	
	Operating time*8	Standard battery	29 hours*9	29 hours*9/27 hours*10 *11	95 hours*9	95 hours*9/40 hours*10 *11	30 hours*9	30 hours*9/28 hours*10 *11	98 hours*9	98 hours*9/42 hours*10 *11
		Thin battery	16 hours*9	16 hours*9/14 hours*10 *11	55 hours*9	55 hours*9/21 hours*10 *11	17 hours*9	17 hours*9/15 hours*10 *11	57 hours*9	57 hours*9/23 hours*10 *11
		AAA alkaline batteries	–		45 hours*9	45 hours*9/17 hours*10 *11	–		55 hours*9	55 hours*9/20 hours*10 *11

*8 The described operating time is a reference figure under regular temperatures and may very depending on usage conditions; *9 With one reading pass over a 5s period and backlight level 1; *10 When ratios of reading, wireless communication, rewriting of screen and holding durations are 1:1:1:20 under continued wireless operation and backlight level 1; *11 When ratios of reading, wireless communication, rewriting of screen and holding durations are 1:1:1:20. The wireless function is enabled only when the terminal is connected to the wireless network; the wireless function is disabled otherwise. The backlight level is 1.

To use this product safely

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

For more information, please visit our website

http://www.denso-wave.com/en/adcd/

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

1243G-4 2015.1

DENSO

HANDY TERMINAL

NEW BHT-1300 SERIES

2D code model

<Windows-OS model> BHT-1361Q-CE, BHT-1361QWB-CE

<BHT-OS model> BHT-1306Q, BHT-1306QWB

Barcode model

<Windows-OS model> BHT-1361B-CE, BHT-1361BWB-CE

<BHT-OS model> BHT-1306B, BHT-1306BWB

Ultimate usability realized in these models

Windows-OS model released!!

OS can be selected according to use

- Windows-OS / • BHT-OS

Amazing 360° reading capability*

*2D code model

3 years

Only for customers registered as a user with DENSO WAVE:

3-year warranty

* See inside pages for details.

OS can be selected from “Windows-OS” and “BHT-OS”!

Universal handy terminal launched!

NEW

Windows-OS model released, as user-friendly as ever

Windows-OS

* Screen showing simulated images

User friendly!

Long operation possible even when the unit is kept online

- Proprietary power-saving design allowing a 28-hour* consecutive operation, the longest in its class.

*When ratios of reading, wireless communication, rewriting of screen, and holding durations are 1:1:1:20 in continuous wireless operation; when a standard battery is mounted in barcode models.

Intuitive operation with touch panel

- A convenient touch panel allows intuitive operation.

High-performance hardware enables comfortable operation.

- High-speed CPU and large-capacity memory enable fast and efficient processing.

Equipment that can be managed with peace of mind!

Based on Windows Embedded Compact 7

- Easy to use around the world, with a versatile OS.

Remote desktop/web browser reduces development man-hours.

- Newly incorporated “remote desktop plug-in” and “web browser plug-in” enable thin client implementation with lower development costs.

Quick wireless cloning*

- Copies of another terminal can be made quickly.
- Each terminal can be set up wirelessly without using a PC.

*Bluetooth + wireless LAN model only.

Compact, but easy to use

- Each model’s body is more than 15% thinner, lighter and smaller*
- Design was sought for functional beauty that also allows comfortable operation despite size constraints.
- Dome-shaped keys are used, which can be operated easily by workers wearing work gloves.

*Compared to Denso Wave’s BHT-800Q when a thin battery is mounted in respective 2D code models.

Capability to read codes from any angle of 360° makes for quick reading.*

- Smooth 360° reading is realized using the latest algorithms.
- Compared to barcode models, working time with the model can be reduced up to 30%.

*With only 2D code model

Distinctive displays even in bright sunlight

- A high-visibility LCD, High-Bright Display, is used.
- A wide viewing angle, and therefore, enhanced visibility from oblique angles is realized.

Solid and robust to protect both hardware and data

- Built-in toughness that endures droppings from 2 m height and operates in minus 20° to 50°C temperature range.
- For Windows-OS model, data on terminals can be backed up with BHT Backup.
- For BHT-OS model, its transaction function automatically restores the immediately previous conditions in the case where the battery is disconnected and a file error occurs.

Comprehensive support system available anywhere in the world.

- The model can be used in more than 40 countries worldwide.
- Supports multi-language display.
  For Windows-OS, fonts for more than 40 countries are supported. For BHT-OS model, Japanese, English, Chinese, Korean and Thai fonts are supported.

Certification expected from the following countries:

27 countries in the EU, USA, Canada, Australia, New Zealand, China, Taiwan, Hong Kong, South Korea, Singapore, Thailand, Malaysia, India, Indonesia, Philippines, Vietnam, Russia, Brazil

3-year warranty allows customer’s long use with peace of mind.

- Customers who register on Denso Wave’s website are offered a 3-year warranty.

*1-year warranty for consumables as defined by DENSO WAVE.

Warranty period is generally 1 year
With BHT-1300,
warranty period is 3 years.

Unique power-saving design enables extended operation time.

- Operation time longer than Windows-OS model.
- Unique power-saving design enables best-in-class long-time operation of 42 hours* even when continuously connected by wireless.

*Ratio of scanning: wireless communication: screen update: standby = 1:1:1:20 under continuous wireless WAN connection. For barcode model with a standard battery.

Ready for use with simple business application software.

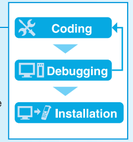
- A simple business application software (Easy Pack Ad) allowing collection of actual records for inventory and inspection plus 1:1/1:n collation is included as standard equipment.
- No other devices are required for data transmission.

Easy-to-use battery-powered terminal*

- Even in the case of sudden loss of battery power, commercially-available dry-cell batteries can be used.

*A dry-cell adapter is separately required.

Equipped with BHT-BASIC.



- Equipped with a development tool to help develop all kinds of applications. Coding, debugging and installation can be efficiently controlled.
- Highly compatible, unique OS enables effective use of application assets.

Solid middleware suited to customers’ uses.

- Various software applications are prepared in cooperation with partner companies across Japan. We introduce software applications best suited to the industry and implementation for each customer.

Easy cloning with IrDA.

- Copies of another terminal can be made easily.
- BHT-OS model is as user-friendly as previous models, yet enables cloning with IrDA.

Compact model with ultimate usability

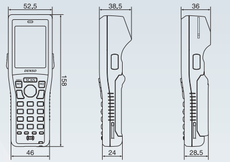
BHT-OS

* Screen showing simulated images

BHT-1300 SERIES

Dimensions

Unit: mm (for reference only)



Components

<Windows-OS model>

- Hand strap with stylus
- Guidelines for operation

* Battery and battery cover are not supplied with the product

- Instruction manual

<BHT-OS model>

- Hand strap
- Guidelines for operation

* Battery and battery cover are not supplied with the product

- Instruction manual

Software

<Windows-OS model>

- 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]

<BHT-OS model>

- Development tools
  - BHT-BASIC4.0 Development Pack
    - Set items
      - BHT-BASIC4.0 Compiler
      - BHT-BASIC4.0 Remote Debugger
      - BHT-BASIC4.0 Transfer Utility
  - BHT-C software development kit
- Preinstalled software
  - Easy Pack Ad for BHT-1300
  - HTML browser
    - BHT Browser
  - Online system emulator
    - BHT Term Emulator
  - Setup software
    - BHT Setting

Items with this mark are available from the company’s homepage (QBdirect) free of charge

Option (sold separately)

<Windows-OS model>

- Holder, which performs data communication with BHT communication unit and the up-level device
  - CU-1301A (RS-232C communications + recharging)
  - CU-1311A (Ethernet communications + recharging)
  - CU-1321 (USB communications + recharging) Common

		CU-1301A	CU-1311A	CU-1321
Between BHT and host	Communication mode	RS-232C	Ethernet (100BASE-T)	USB2.0 Full speed mode-compatible
Charging unit	Battery charge time	Approx. 3,5 hrs for standard battery/ Approx. 2,5 hrs for thin battery		Approx. 10 hrs for standard battery/ Approx. 6 hrs for thin battery*1
Size(mm)		109(D)×95(W)×111(H)		
Working voltage		AC adapter*2		Supplied from USB port/AC adapter*2

*1 Charges depending on the power supplying capacity of connected device: approx. 3,5 hrs for standard battery and approx. 2,5 hrs for thin battery when AC adapter is connected.
*2 The AC adapter is optional.

- Batteries/battery adapters
  - BT-130LA-CE-C (thin battery + battery cover)*
  - BT-130L-CE-C (standard battries + battery cover)
  - BT-130LA (thin battery only)* Common
  - BT-20LB (standard batteries only) Common

* Available in a limited number of countries. Contact your dealer to inquire about availability.

- Recharger
  - CH-1104 Common (4 serial battery rechargers)
  - CH-1354 Common (4 serial unit rechargers)
  - CH-201A (Battery charger) Common
  - CH-201B (Battery charger) Common
- Soft case and others
  - SCBHT-1300 (soft case) Common
  - WHBHT-1300 (waist case) Common
  - EA-13B (touch scan attachment for barcode models)
  - NSBHT-1300 (Neck strap) Common
- Communication cable
  - CBBHT-US2000/C13-4A-CE

* The BHT-1300 can be charged by connecting it to a USB charger or other power adapter, or a PC USB port. When charging the BHT-1300, use a device that satisfies the following output and USB charging specifications.
Output specifications:
(voltage) DC5±0.25V/(current) 1.2A or higher
USB charging specifications:
Battery Charging Specification Rev. 1.2

<BHT-OS model>

- Holder, which performs data communication with BHT communication unit and the up-level device
  - CU-1301 (RS-232C communications + recharging)
  - CU-1311 (Ethernet communications + recharging)
  - CU-1321 (USB communications + recharging)

		CU-1301	CU-1311	CU-1321
Between BHT and host	Communication mode	RS-232C	Ethernet (10BASE-T)	USB2.0 Full speed mode-compatible
Charging unit	Battery charge time	Approx. 3 hrs for standard battery/ Approx. 2 hrs for thin battery		Approx. 7 hrs for standard battery/ Approx. 4 hrs for thin battery*1
Size(mm)		109(D)×95(W)×111(H)		
Working voltage		AC adapter*2		Supplied from USB port/AC adapter*2

*1 Charges depending on the power supplying capacity of connected device: approx. 3 hrs for standard battery and approx. 2 hrs for thin battery when AC adapter is connected.
*2 The AC adapter is optional.

- Batteries/battery adapters
  - BT-130LA-C (thin battery + battery cover)*
  - BT-130L-C (standard batteries + battery cover)
  - BT-130LA (thin battery only)* Common
  - BT-20LB (standard batteries only) Common
  - B-130D (adapter for drycell)

* Available in a limited number of countries. Contact your dealer to inquire about availability.

- Recharger
  - CH-1104 Common (4 serial battery rechargers)
  - CH-1354 Common (4 serial unit rechargers)
  - CH-201A (Battery charger) Common
  - CH-201B (Battery charger) Common
- Soft case and others
  - SCBHT-1300 (soft case) Common
  - WHBHT-1300 (waist case) Common
  - EA-13B (touch scan attachment for barcode models) Common
  - NSBHT-1300 (Neck strap) Common
- Communication cable
  - CBBHT-US2000/C13-4A

* The BHT-1300 can be charged by connecting it to a USB charger or other power adapter, or a PC USB port. When charging the BHT-1300, use a device that satisfies the following output and USB charging specifications.
Output specifications:
(voltage) DC5±0.25V/(current) 1.0A or higher
USB charging specifications:
Battery Charging Specification Rev. 1.2

Common : Peripheral devices bearing this mark can be used for both Windows OS and BHT-OS models.