TOYOTA TSUSHO ID SYSTEMS

20 DENSO INVENTOR OF QR-CODE®

COMPACT RUGGED HANDHELD

NEW

BARCODE HANDHELD TERMINAL

BHT-1300 SERIES

Windows Embedded CE

DENSO OS

1D Barcode model
BHT-1361B-CE
BHT-1361BWB-CE
BHT-1306B
BHT-1306BWB

2D code model
BHT-1361Q-CE
BHT-1361QWB-CE
BHT-1306Q
BHT-1306QWB

3 YEAR WARRANTY

Combining the best of design, technology and operability.

User friendly

Outstanding Scanning Performance

- 2D model is capable of reading barcodes in any direction regardless of orientation.
- Smooth 360° reading is realized using the latest algorithms.
- Thanks to its 360° reading capability, inventory time can be drastically cut - up to 30% compared to 1D barcode models.

New Stylish Design: Slim and Compact

Terminal is more than 15% slimmer, lighter and smaller, measuring only 158mm in length x 24mm in thickness and weighing in at 188g with thin battery compared to previous model. The functional design provides long, comfortable operation despite compact size.

Durable Domed Keypad design

- Back print on keys and keys backlight for longevity.
- Easy to operate the target key even when user is wearing gloves.
- The keypad backlight allows the terminal to be used in dark environment.

Clear view

- A high-visibility QVGA LCD "High-Bright-Display" is installed ensuring absolute clear and easy readability.
- A wide viewing angle enhances visibility from all angles even in bright sunlight.

Safety and speed required for business-use today

Fast Wireless Communication

Supports IEEE802.11b/g/n providing high-speed communication.

Wireless LAN Security

Embedded with WPA/WPA2, highly reliable security technique, together with WEP.

Expansion Memory

Capable of Backing-up RAM data on a MicroSDHC (up to 32 GB). Battery start-up* is supported for emergency situations.

* a battery adapter is required and is sold separately

Data backup

Flash ROM with high-capacity of 2 GB, use it without worries about the capacity.

Solid and Robust – Equipment that can be managed with peace of mind!

Environment

Built-in toughness to operate in minus -20°C and up to +50°C temperature range.

Durability

IP54 protected against dust and water. Built-in toughness that endures drops from 2 m height.

15% SLIMMER

20% LIGHTER

25% SMALLER

"SCAN" Key in the center

Efficient key operation by locating frequently used keys in the center. Easy to reach “SCAN”, “Numeric key” and the “ENT” key without repositioning your hand.

Intelligent Key Position

All keys located within reach of the thumb.
Easy keystoke regardless of hand size.

Domed Key Pad Design

Easy to press the target key even if user wear gloves.

Global support

GLOBAL PRODUCTS

Available in more than 40 countries across the world!
Total support system

Full range of service from sales to maintenance.
Approved authorised repair and service centers.

3 Year Warranty gives carefreeness

DENSO WAVE now offers a 3 year warranty for the BHT-1300 series which gives you peace of mind.

User friendly

Windows Embedded CE

Windows Embedded Compact 7 is implemented.

The BHT-1300 can replace current compact Windows terminals and manage existing software and applications.

Extended operation time

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

Intuitive operation

A convenient touch panel allows intuitive operation.

DENSO OS

Equipped with BHT-Basic

DENSO-OS is the proprietary operating system developed by DENSO Wave. Over 1 million DENSO-OS terminals uses this system up to version 4.0.
The BHT-1300 is fully downwards compatible.

Extended operation time

Operation time longer than Windows-OS model. Unique power-saving design enables best-in-class.

Pre-Installed Business Application

A simple business application software (Easy Pack Ad) allowing collection of actual records for inventory and inspection is included in the system software. No other devices are required for data transmission.

Safety and speed required for business-use today

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.

Standard Applications to suit customer needs

Various software applications are prepared in cooperation with partners to provide additional functions like host access (terminal emulation/browser)

Wireless Clone producing*

Capable of cloning a device to a salve unit via Wi-Fi. Simply set up a new device without using additional equipment by producing a clone unit from a master unit without using a PC or communication unit.

* Bluetooth + wireless LAN model only.

Easy cloning IrDA

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

Keypad layout comparison Windows-OS and BHT-OS Model

Windows-OS Model

Denso-OS Model

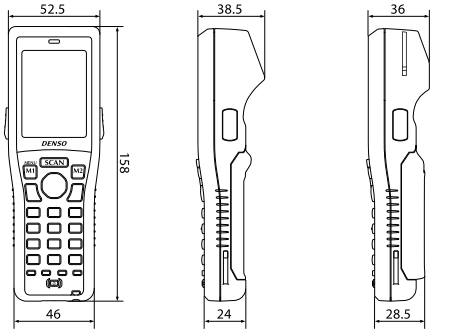
Major Changes

- FNC, ALP, ESC key
- On function mode, F1-F12
- TAB key on M2 key

Dimensions Unit: mm (for reference only)

2D code model with thin battery mounted

Barcode model with standard battery mounted



* 28.5 mm with standard battery mounted

* 24 mm with thin battery mounted

Components

Windows- / Denso-OS models

- Hand strap with stylus
- Guidelines for operation

  * Battery and battery cover are not supplied with the product
- Instruction manual

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

Software

Windows-OS model

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

  * Download SDK free of charge from webpage.
- Preinstalled software
  - › Keyboard interface application software [kbifCE]
  - › Wireless setting tool [WLAN Manager]
  - › Launcher [Application Launcher]
  - › Back-up tool [BHT Backup]

Denso-OS model

- Development tools
  - › BHT-BASIC4.0 Development Pack
  - › 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

Accessories (sold separately)

Windows-OS model

- CU-1301A (RS-232C communications + recharging)
- CU-1311A (Ethernet communications + recharging)
- CU-1321 (USB communications + recharging)

		CU-1301A	CU-1311	CU-1311A
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: Changes 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.

- Charger
  - › CH-1104 (4 serial battery charger)
  - › CH-1354 (4 serial unit charger)
- Batteries/battery adapters
  - › BT-130LA-CE-C (thin battery + battery cover)*
  - › BT-130L-CE-C (standard batteries + battery cover)
  - › BT-130LA (thin battery only)*
  - › BT-20LB (standard batteries only)

  * Available in a limited number of countries. Contact your dealer to inquire about availability.
- Soft case and others
  - › SCBHT-1300 (soft case)
  - › WHBHT-1300 (waist case)
  - › EA-13B (touch scan attachment for barcode models)
- Cable
  - › USB cable for PC-BHT

  * Using this cable, communications and recharging between a PC and a BHT unit are possible. However, use the above communication unit for daily communications and recharging.

Denso-OS model

- 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: Changes 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.

- Charger
  - › CH-1104 (4 serial battery charger)
- CH-1354 (4 serial unit charger)
- Batteries/battery adapters
  - › BT-130LA-C (thin battery + battery cover)*
  - › BT-130L-C (standard batteries + battery cover)
  - › BT-130LA (thin battery only)*
  - › BT-20LB (standard batteries)

  * Available in a limited number of countries. Contact your dealer to inquire about availability.
- Soft case and others
  - › SCBHT-1300 (soft case)
  - › WHBHT-1300 (waist case)
  - › EA-13B (touch scan attachment for barcode models)

BHT-1300 series specification

				2D code model				Barcode model			
Type				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			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) × 20 rows, 30 (1-byte characters) × 20 rows		Can be set as required in the application.		15 (2-byte characters) × 20 rows, 30 (1-byte characters) × 20 rows	
			24-dot font			10 (2-byte characters) × 13 rows, 20 (1-byte characters) × 13 rows				10 (2-byte characters) × 13 rows, 20 (1-byte characters) × 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			
	Marker			Area guide marker				–			
	Scan Confirmation			LED in three colors: Blue/red/green, speaker, vibration							
Keypad	Number of keys			21 keys (including power key) + Cross-hair cursor key + 3 trigger keys*4							
Communication	Optical I/F		Communication mode	–		Infra-red (IrDA Ver. 1.2[low power]physical signaling layer-compliant)		–		Infra-red (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		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 Band	–	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, IEEE802.11g: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, IEEE802.11g: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	–	Infrastructure mode, ad-hoc mode	–	Infrastructure mode	–	Infrastructure mode, ad-hoc mode
			Security	–	WEP40/128, WPAPSK(TKIP,AES), WPA2-PSK(TKIP,AES), WPA-1x(TKIP,AES/EAP-TLS,PEAP), WPA2-1x(TKIP,AES/EAP-TLS,PEAP), 802.1x(EAP-TLS,PEAP)	–	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), WPA2-1x(TKIP,AES/EAP-TLS,PEAP), 802.1x(EAP-TLS,PEAP)	–	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 Functions				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)							
Weight				Approx. 193 g (with thin battery mounted), approx. 211 g (with standard battery mounted)		Approx. 188 g (with thin battery mounted), approx. 206 g (with standard battery mounted)		Approx. 193 g (with thin battery mounted), approx. 211 g (with standard battery mounted)		Approx. 188 g (with thin battery mounted), 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 vary 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	95 hours*9	95 hours*9/40 hours*10	30 hours*9	30 hours*9/28 hours*10	98 hours*9	98 hours*9/42 hours*10
		Thin battery	16 hours*9	16 hours*9/14 hours*10	55 hours*9	55 hours*9/21 hours*10	17 hours*9	17 hours*9/15 hours*10	57 hours*9	57 hours*9/23 hours*10
		AAA alkaline batteries	–		45 hours*9	45 hours*9/17 hours*10	–		55 hours*9	55 hours*9/20 hours*10

*8 The described operating time is a reference figure under regular temperatures and may vary 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.

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NOTE: Please read the instruction manual carefully before operating this device. Technical details may change at any time without prior notice. Specifications are as of July 2014.