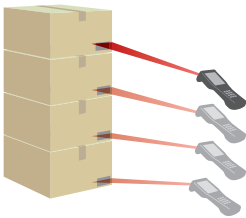# DENSO ‖ADC
INVENTOR OF THE QR CODE®

[BHT-1100]

The BHT-1100 handheld barcode terminal makes barcode scanning quicker and easier, thus increasing operator efficiency. New Advanced Scan Plus™ CCD technology allows the BHT-1100 to read barcodes three times faster than a laser scanner and from up to 25 feet or more away. Other outstanding features include an ergonomically shaped grip and large keyboard, as well as IEEE802.11b/g/n-compliant, high-speed wireless transmission and VoIP.

SCANNING PERFORMANCE

Even blots or smears don't deter the new Advanced Scan Plus™ scan engine, with laser-scanner performance levels.

Advanced Scan Plus™ Advantage #1
High-speed scanning

- ◙ Unique Advanced Scan Plus™ CCD method achieves approximately three times the speed of laser scanners
- ◙ Fast, continuous scanning saves time

Advanced Scan Plus™ Advantage #2:
Long-range scanning

- ◙ Scan from close up or far away
  - ◙ 25 feet or more
- ◙ Easily scan from floor to ceiling without having to change position

Advanced Scan Plus™ Advantage #3:
Unaffected by blots or smears

- ◙ Reads barcodes in two dimensions instead of only one, resulting in quick, accurate scanning of even smeared or dirty codes
- ◙ Also reads high-density and wide barcodes

Conventional scanners	Advanced Scan Plus™
Easily affected by blots or smears	Vertically expanded view not affected by blotted or smeared barcodes

DURABILITY

Rugged construction features
- ◙ Shock-absorbent material molded onto scanner head prevents damage due to bumping or dropping
- ◙ Durable keys, with lettering that won't wear off
- ◙ Rugged, long-lasting construction resists damage in tests of 60 drops onto concrete from a height of 1.2 m
- ◙ G-sensor

ERGONOMIC DESIGN

Easy to hold and operate—reduces operator fatigue

3.5 inches

55mm

◉ **Large, easy-to-read screen and slim grip**
The large, 3.5-inch screen and slim grip increase ease of use. Frequently used keys such as ENT and SCAN are centrally located at the top to minimize finger movement, reducing fatigue.

Large keyboard is easy to use, even with gloves

Tilt angle based on usage studies

Angle

◉ Specially designed tilt angle is based on studies of the unit in actual operation; minimizes screen glare in bright light, allows high readability in all conditions
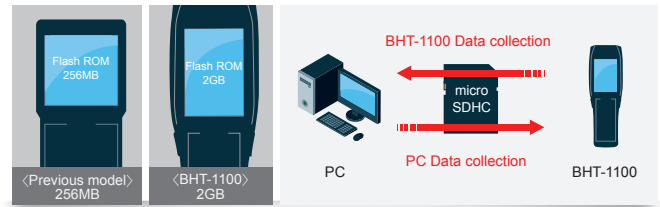
Highly stable grip

◉ Molded back ensures secure grip
◉ Hand strap further increases grip stability
◉ Stable operation with either keyboard or stylus

ADVANCED FEATURES

Large memory, high processor speed
◉ Allows significantly faster processing than conventional devices

Flash ROM 256MB

Flash ROM 2GB

‹Previous model› 256MB

‹BHT-1100› 2GB

BHT-1100 Data collection

micro SDHC

PC Data collection

PC

BHT-1100

◉ Flash ROM capacity significantly increased to 2 GB, preventing slowdowns due to insufficient memory
◉ MicroSDHC compatibility allows smooth, high-speed data transfer between BHT and external devices

New BHT Backup
◉ Automatically backs up data to internal flash memory or external MicroSDHC, allowing quick resumption of work in case of battery failure

Built-in digital camera
◉ Take photos of defective goods during inspection, eliminating the need to carry a separate camera (3.2 MP option)
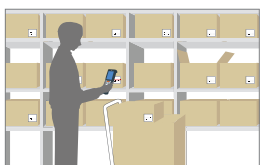
ACCESSORIES (sold separately)

Transmission unit (cradle)
◉ Allows battery charging and data transmission between BHT and higher-end devices)
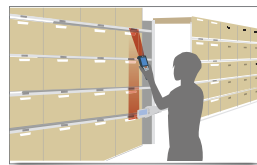
Backup batteries
◉ Standard (2300 mAh)
◉ Large capacity (3450 mAh)

TYPICAL APPLICATIONS

Order picking
With the unit's large, 3.5-inch high-resolution screen, information is easy to read, preventing eye fatigue even during long periods of use
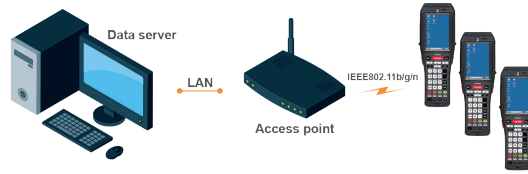
Inventory management
Even with stock shelved from floor to ceiling, barcodes can be quickly scanned without the need of a stepladder, saving valuable time
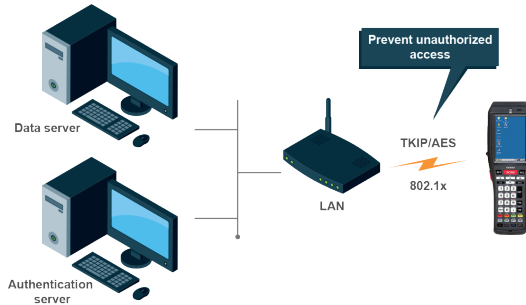
DATA TRANSMISSION

IEEE802.11b/g/n compatible
◉ High data-transfer speeds of up to 65 Mbps

Data server
LAN
Access point
IEEE802.11b/g/n

Wireless LAN security
◉ Highly reliable WPA/ WPA2 security prevents unauthorized access or data theft

Data server
Authentication server
LAN
Prevent unauthorized access
TKIP/AES
802.1x

Bluetooth® transmission
◉ Built-in Bluetooth Ver. 2.0 allows wireless communication with printer, PC, mobile phone, etc.

Mobile Phone
Modem
Printer
PC

DEVELOPMENT TOOLS

Compatible with variety of development tools
◉ Microsoft Visual Studio 2008
  ◉ Microsoft Visual C++ [1]
  ◉ Microsoft Visual Basic [1, 2]
  ◉ Microsoft Visual C# [1, 2]
◉ Microsoft Visual Studio 2005
  ◉ Microsoft Visual C++ [1]
  ◉ Microsoft Visual Basic [1, 2]
  ◉ Microsoft Visual C# [1, 2]

1. Development of applications using BHT-specific features requires the library/class library included in the BHT-specific Software Development Kit (SDK), which can be downloaded free from our website at www.denso-adc.com.
2. The BHT-specific class library is compatible with the following versions: Microsoft .NET Compact Framework 2.0/3.5.

SOFTWARE

HP⬇ **Windows® CE Software Development Kit (SDK) specifically for BHT [1]. Download at denso-adc.com**
◉ **Keyboard interface software [kbifCE] [2]**
  1. Pre-installed on BHT
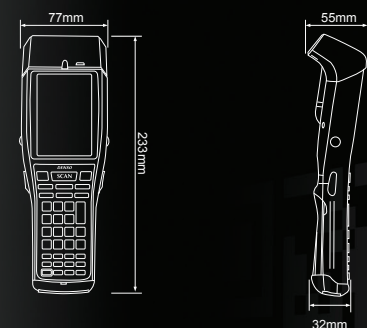 2 . Can be downloaded free of charge by customers who have purchased a Windows-version BHT

INCLUDED ACCESSORIES

◉ Hand strap
◉ Stylus pen
◉ Operation guide
HP⬇ User manual. Download at denso-adc.com

Battery and battery cap not included

	CU-1133	CU-1111
Transmission method	RS-232C/USB2.0 full-speed compliant	Ethernet 100BASE-TX)
Charging time (main unit)	Backup battery: approx. 3 hours; large-capacity battery: approx. 4.5 hours	
Pre-charge	Backup battery: approx. 3 hours; large capacity battery: approx. 4.5 hours	
Size	133 ×94 ×111 mm (DxWxH)	
Power Spply	AC adapter (AD3-1012/3000/02)	

Direct-connection cables
(To connect BHT directly to host system)
◉ RS-232C   ◉ USB

Carrying cases
◉ SCBHT-1100 (Soft case)
◉ WHBHT-1100 (Waist case)

DIMENSIONS

77mm
233mm
55mm
32mm

Unit: mm (all measurements for reference only)

In-store inspection
Large amount of information can be displayed on a single screen, reducing inspection time

Ordering
Wide-area wireless coverage and stable data-transmission speed makes ordering quicker and easier even in large stores
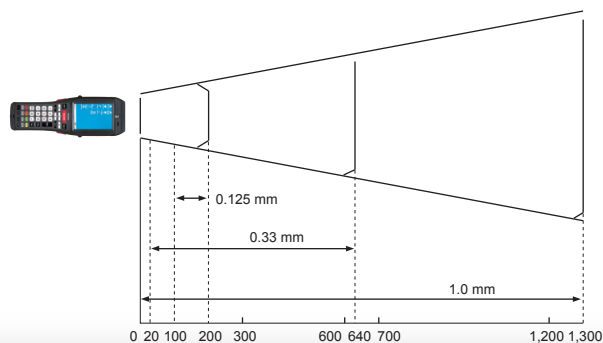
BHT-1100 SPECIFICATIONS

Type			📷 BHT-1171BWB-CE	BHT-1170BWB-CE
OS			Windows Embedded CE6.0 R3	
CPU			32-bit RISC 800 MHz	
Memory	RAM		512 MB	
	Flash ROM		2.0 GB	
Display	Resolution[1]		320 x 480 (3.5" HVGA) / 240 x 320 (3.5" QVGA)	
	Type		Backlit liquid-crystal dot matrix	
Scanner	Scanning system		Advanced Scan Plus™ (CCD)	
	Readable codes		EAN-13/8 (JAN-13/-8), UPC-A/-E, UPC/EAN (with add-on), Interleaved 2 of 5, Standard 2 of 5, Codabar (NW-7), Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 DataBar (RSS)	
	Scanning distance		640 mm (resolution 0.33 mm), 1,300 mm (resolution 1.0 mm)	
	Minimum resolution		0.125 mm	
	Scan confirmation		LED (3 colors: blue, red, green), speaker, vibrator	
Keypad	Number of keys		36 (excluding power button) plus 3 trigger keys	
Data transfer	Wireless I/F	Standard compliance	IEEE802.11b/g/n	
		Frequency	2.4 GHz	
		Transmission distance[2]	Indoor: 150 m; outdoor: 300 m	
		Available channels[2]	IEEE802.11b: 11/5.5/2/1 Mbps; IEEE802.11g: 54/48/36/24/18/12/9/6 Mbps; IEEE802.11n: 65/58.5/52/39/26/19.5/13/6.5 Mbps	
		Security	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)	
	Bluetooth		Bluetooth Version 2.0, EDR Class 2	
	Cradle I/F		RS-232C/USB client	
Card slot			microSDHC X1	
Camera			3.2 MP (megapixels)	N/A
Power Supply	Main battery		Lithium-ion battery	
	Operating time		Standard battery: approx. 17 hours; large-capacity battery: approx. 25 hours[3]	
Aditional features			Speaker, LED, vibrator, microSDHC	
Environmental requirements	Operating temperature		-20 to 50 °C[4] / -4 to 122°F	
	Protection level		IP54	
	Drop resistance[5]		1.5m / 5ft drop on concrete floor, 10 times each on all 6 sides (total 60 times)	
Weight			380 g	375 g

1. LCD panel manufactured using high-precision technology. Number of effective pixels is more than 99.99%, but up to 0.01% of pixels may be missing or not completely bright.
2. Transmission distance and speed are theoretical values and may differ according to operating environment.
3. At a scanning:wireless transmission:screen transition:stand-by ratio of 1:1:1:20, wireless stand-by (power-save on) and with LCD backlight low. Given values are for room temperature; actual operating hours may vary according to environment.
4. Zero to 40 °C when charging.
5. Experimental value at room temperature; not guaranteed.

READING AND VIEWING DISTANCE

BHT-1100 Scanning distance (mm)

0.125 mm
0.33 mm
1.0 mm

0 20 100 200 300   600 640 700   1,200 1,300

BHT-1100 Web page

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