

DENSO

1D•2D code scanner/01.02

1D•2D Code Handy Terminal

BHT-100 SERIES



New Generation

BHT-100 SERIES DEBUT

This innovative and versatile new range includes both RF models for real-time data transmission and batch models.

Applications requiring the reaching of 1D, 2D or both types of barcodes can all be met with models in the ergonomic BHT-100 series.



BHT-100Q

BHT-100B

BHT-100 SERIES FEATURES

User Friendly ergonomic design "Roundish Form"

Comfortable to hold with ease to use key layout.

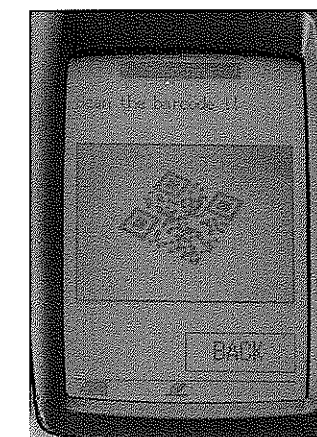
Touch screen

Pen input is available for easy menu selection and signature and image capture.



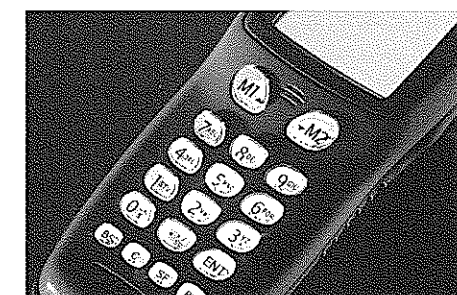
Large High Resolution display

200 x 320 dot resolution, Screen is 2.5 times the size of previous product line, giving easy reference to a large amount of data.



Back-lit keyboard

Display and keyboard are back-lit for operation in dark environments.



Vibrating

For environments where a beep confirmation is not convenient.

Remote Wake-up

BHT-100 units can be operated remotely from the host computer when placed on the IrDA communication cradle.

RF Model

Real-time communication is achieved via a Spread Spectrum RF Network.

BHT-100Q for 1D and 2D codes

Longer Operating time

BHT-100Q 1D and 2D barcode scanning model features reduced power consumption.

This results in double the operating time over conventional 2D readers.

BHT-100B for 1D code

Advanced scanning

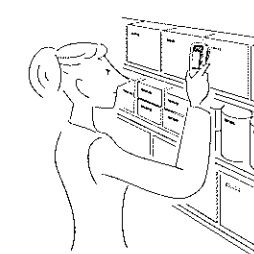
The BHT-100 1D models employ advanced scanning system, which enables fast-touch and long-range scanning of high-density bar codes.

On scanning, a laser beam is emitted to determine the scanning range and facilitate detection of target bar codes.

Application samples



Shipping Control



Inventory Control



Delivery Management

SPECIFICATIONS

Item	BHT-103Q		BHT-103QF	BHT-102B	BHT-102BF
Controller	CPU		32bit RISC		
	Memory		8MB	4MB	
Display	Display device		FSTN liquid crystal display (4 gray shades)		
	Size		200 dot x 320 dot		
	Capability *1	Alphanumeric	16 char x 25 lines		
		KANJI(small)	16 char x 25 lines (half width 33 char x 25 lines)		
		KANJI(standard)	12 char x 19 lines (half width 25 char x 25 lines)		
	Touch screen		YES		
	Back light		YES		
Scanner	Method		Area sensor	Advanced*4 scanning	
	Scanning-area(reading width)		60mm x 44mm (at the distance 90mm)	380mm (reading widow 50mm)	
	Readable codes	1D	EAN-8/13, UPC-A/E, CODE39, CODABAR, ITF CODE128 EAN-128	EAN-8/13, UPC-A/E, CODE39, CODABAR, ITF CODE128 UPC/EAN with supplemental CODE93, STF(Standard 2 of 5) EAN-128	
		2D	QR Code, Micro QR Code, PDF417, Maxi Code, Data Matrix		
	Reading Confirmation		2 color (red and green) LED, buzzer, vibrator		
Communications	Optical I/F	Method	Infra-red (IrDA-SIR1.0 compliant)		
		Speed	115.2kbpsMAX		
	Connector I/F	Method	RS-232C		
		Speed	115.2kbpsMAX		
	RF I/F		—	FCC part 15 in USA, ETSI ETS 300/328 and CE EMC -EEC in Europe	—
		frequency	—	2.4GHz	—
		distance *2	—	Indoor : 75m(82yd) Outdoor : 200m(230yd)	—
		speed *2	—	1.6MbpsMAX	—
Operation hours *3		Approx. 20 hours			Approx. 40 hours
Auxiliary Functions		clock, buzzer, resume, voltage display, remote-wakeup			
Power Supply	Main battery		Lithium-ion battery cartridge		
Weight (incl. Battery)		Approx. 280g (99oz)	Approx. 300g (10.6oz)	Approx. 280g (99oz)	Approx. 300g (10.6oz)
Environment	Operating temperature		-5 to 50°C		
Requirements	Drip-proof		JIS Proof Type II		

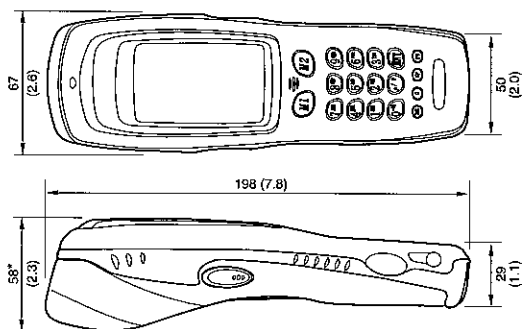
*1. In each capability, double-width, double-height, and double-width height are adjustable

*2. Communication distance and speed depend on a working environment.

*3. Two times scanning of QR code or barcode in 10 seconds.

*4. Scanning at the distance of 400mm, (Narrow bar width over 1.0mm and 500lx.)

Dimensions (BHT-103Q: slant beam type)



unit: mm (inch)

*It depends on a model. (57mm for BHT-102B)

For safe use

- Before use, read the user's manual carefully

● Appearance and specifications are subject to change ● Information in this catalog is current as of March 2001

Accessories

- Hand Strap
- Touch Pen
- Lithium-ion Battery Cartridge

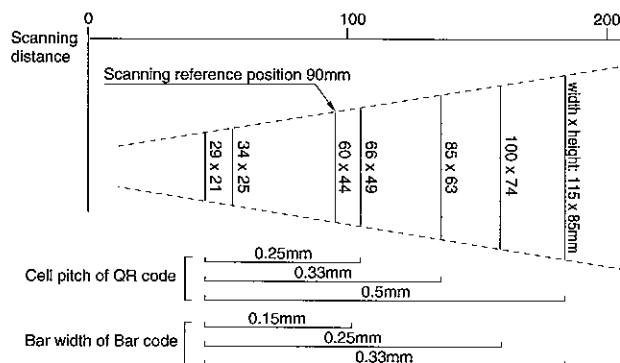
Options (sold separately)

- Optical Charging Communication Unit CU-7001
- Optical Non-charging Communication Unit CU-7002
- Lithium-ion Battery Cartridge charger C-700
- Lithium-ion Battery Cartridge B-70L

Software (sold separately)

- BHT-BASIC 3.5 Compiler
To develop application programs for BHT-100 series
- Ir-transfer Utility C and E
To transmit data between PC and BHT-100 series
- Ir-transfer Utility C and E DLL pack
To develop applications that features communication functions with BHT.

Scanning distance and area (BHT-100Q for 1D and 2D)



For details of QR code and its scanners, refer to the following web-site
<http://www.denso.co.jp/EAP>
<http://www.qrcode.com>

CAUTION
 LASER LIGHT-DO NOT STARE INTO BEAM
 LOW MAXIMUM OUTPUT: 850nm LASER
 CLASS II LASER PRODUCT
 THIS DEVICE COMPLIES WITH 21 CFR CHAPTER I, SUBCHAPTER J.

Manufacturer: **DENSO WAVE INCORPORATED**
 DENSO WAVE INC. was formed on 1st October 2001
 from DENSO's Automatic Data Capture Division.

3.10 Radio Interface

Item		Specifications
General	Certification	ETSI ETS 300.328 in European Union FCC Part 15 Subpart C in United States
	Radio Type	Spread Spectrum, Frequency Hopping
	Frequency Range	2400MHz ~ 2483.5MHz
	Data Rate	1.6Mbps(main) / 800kbps(back off) (The data rate is automatically controlled)
	Modulation Type	4FSK(main) / BFSK(back off) (The modulation is automatically controlled)
	Hopping Channels	15
	Communication distance(reference value) *	200m in open space 75m in office environments
Transmitter	Output Power	+ 20dBm EIRP
	Channel Spacing	1MHz
	Spurious Emissions	-50dBm MAX.

* Communication distance is reference value in the place that get an unobstructed view.
Communication distance depends on operating environment.

Notes for Radio Communication

- (1) Make sure that the intended environment is free of the interference factors and actually capable of supporting link operation.
- (2) Do not cover the antenna section by hand.(figure 3.)
Doing so may result in communication failure.
- (3) Environmental factors that can also interfere with link operation include metallic objects in the vicinity of the path.

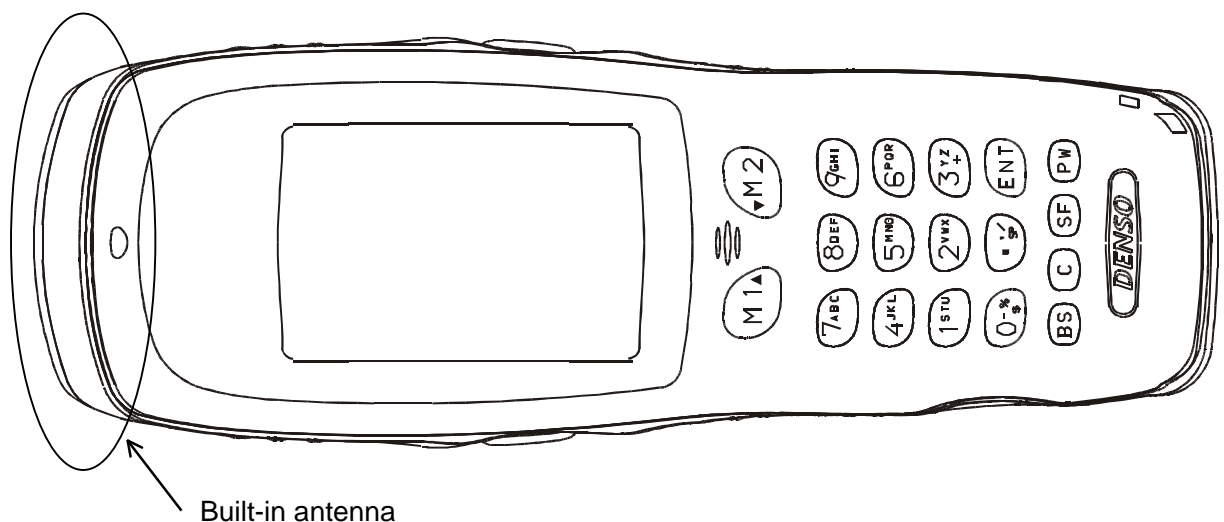


Figure 3. Built-in antenna section