

Model		2D Code Model	
		Wireless LAN connection BHT-M60-QW	Wireless LAN+Wireless WAN BHT-M60-QWG
Operating System			
Android™ 10			
CPU			
Qualcomm® SDM660 64 bit 2.20 GHz (Octa-Core)			
Memory	RAM	4 GB	
	Flash memory	64 GB	
	Screen size and resolution <sup>*1</sup>	3.2-inch WVGA (480x800 dots)	
Display	Display device	Dot matrix liquid crystal display (color)	
	Backlight	White LED	
	Reading method	Area sensor	
Reader	Supported code	2D code	QR code®, Micro QR code, SQRC®, PDF417, Micro PDF417, Maxi code, Data Matrix (ECC200), and GS1 Composite
		Barcode	EAN-13/8 (JAN-13/8), UPC-A/E, UPC/EAN (with add-on), and Interleaved 2 of 5 (ITF), Codabar (NW-7), CODE39, CODE93, CODE128, GS1-128 (EAN-128), and Standard 2 of 5 (STF), GS1 DataBar (RSS)
		OCR* <sup>2</sup>	Supported
	Minimum resolution	2D code	0.127 mm
		Barcode	0.076 mm
	Marker	Cross guide marker	
Confirmation of reading	Blue LED, speaker, and vibrator		
Key Entry	Number of keys	27 keys (including the power key), cursor keys, and 3 trigger keys	
Touch screen			
Dragontrail® Pro <sup>*3</sup> Capacitive multi-touch screen with glove touch support and water droplet false touch prevention			
Communication	Wireless LAN	Applicable standard	Compliant with IEEE802.11a/b/g/n/ac and MU-MIMO 2x2
		Frequency	5 GHz-band (W52, W53, W56 and W58) 2.4 GHz-band (1 to 13 channels *USA, Canada and Taiwan(1 to 11 channels))
		Security	Encryption : WEP (40/128), TKIP and AES WPA authentication : WPA, WPA2 and WPA3 User authentication : PSK, EAP-TLS, and PEAP
	Wireless WAN applicable standard	—	Supported: W-CDMA/LTE, VoLTE FDD-LTE (4G) - Bands 1, 3, 5, 7, 8, 19, 20, 26, 28 TDD-LTE (4G) - Bands 39, 40, 41 W-CDMA/UMTS/HSPA/HSPA+ (3G) - Bands 1, 5, 6, 8, 19 A-GPS/GLONASS/QZSS/BeiDou/Galileo
	GPS	—	A-GPS/GLONASS/QZSS/BeiDou/Galileo
	Bluetooth® connection	Bluetooth® Ver5.1+EDR/LE(Supported Profile : RFCOMM/A2DP/AVCTP/ACDTP/GVDP/AVRCP/DUN/DI/HFP/HID/HSP/OP/MAP/OPP/BNEP/PAN/PBAP/SAP/SPP/HOGP/SCPP)	
Wired connection	USB Ver.2.0(USB Type-C)		
NFC <sup>*4</sup>	ISO/IEC14443A&B, FeliCa, ISO/IEC15693(RFID)		
Camera	Rear	13-megapixel auto-focusing with a LED light	
Card Slot	Front	microSD (SDHC and SDXC (up to 128 GB)) SDHC Speed class 4 support	
Memory	—	nanoSIM x 1	
Microphone receiver	Attached * <sup>5</sup>		
Speaker	90dB or more at 10 cm away (at 2.8kHz)		
Sensor	G-sensor, gyro sensor, proximity sensor, light intensity sensor, and geomagnetic sensor		
Power Supply	Main battery	Lithium-ion battery	
	Wireless charging	Not supported	
	USB charging	Compliant with Qualcomm® Quick Charge™ 3.0	
	Operating time <sup>*8</sup>	BT2S(1900 mAh)	Approx. 14 hours <sup>*9</sup>
BT2(3200 mAh)		Approx. 24 hours <sup>*9</sup>	
Environmental Performance	Operating temperature <sup>*6</sup>	-20°C to 50°C	
	Operating humidity	5 to 95%RH (non-condensing and non-icing)	
	Protective class <sup>*7</sup>	IP65 and IP67	
Drop resistance <sup>*7</sup>	Above concrete floor, 3.0 m, 60 times or more from 1.5 m		
Weight (including the battery)	Approx. 305g(including BT2S), Approx. 320g(including BT2)		

\*1. The LCD display is manufactured with precise technology. The rate of non-defective pixels is 99.99% or more, which means that 0.01% or less pixels could be stuck or dead.

\*2. Chargeable license is required.

\*3. Dragontrail® Pro is a registered trademark of AGC Inc.

\*4. Before using the NFC function, perform test reading sufficiently using the target NFC card.

\*5. A headset or headphone can be connected through the USB Type-C cable. A USB Type-C-to-audio jack (3.5 mm) conversion cable is optional.

\*6. 0°C to 40°C during charging.

\*7. These are the values tested at a room temperature, and not guaranteed values.

\*8. The operating time is a reference value at a room temperature and may differ depending on the operating conditions.

\*9. This is a result of measurement based on the JEITA HT Standard Operation Mode G, and may change depending on the operating environment and system settings.

Dimensions unit : mm (All reference values)

BHT-M60-QW BHT-M60-QWG



Package includes :

- Terminal ● Hand strap (HSBHT-300/800) ● Operation manual ● User's Manual (Can be downloaded from the DENSO WAVE website.)

Options

- Battery
  - 1900mAh battery : BT2S
  - 3200mAh battery : BT2
- Others
  - Waist case : WHBHT-M60/S40/S30
  - Stylus pen : PNBHT-1700
- Charger
  - 4-slot main unit charger : CH-M60-4<sup>\*1</sup>
  - Single-slot battery charger : CH-BT2<sup>\*1</sup>
  - 4-slot battery charger : CH-BT2-4<sup>\*1</sup>
  - USB power adaptor (Quick Charge™ 3.0 supported) : AD8
  - USB Type-C - Type-A conversion cable (1.5m) : B00-US1500/4A-4C
  - USB Type-C - Audio Jack conversion cable (3.5mm) : CB00-US100/3-4C<sup>\*2</sup>
- Communication unit
  - USB type
    - With a spare battery charger : CU-M60U<sup>\*1</sup>
    - Without a spare battery charger : CU-M60UQ (Quick Charge™ 3.0 supported)<sup>\*1</sup>
  - LAN type
    - With a spare battery charger: CU-M60L<sup>\*1</sup>

\*1 AC adaptor sold separately

\*2 You also need the conversion cable to equip the BHT terminal with earphones and other devices.



**Equipped with Android™ 10**

Outstanding multifunctionality and unprecedented robustness



# Work with easy using just one hand



Actual size

# CREATE YOUR NEW WORKSTYLE

NEW BHT®



**STYLE 01** | Logistics & manufacturing

### Prompt troubleshooting by video call

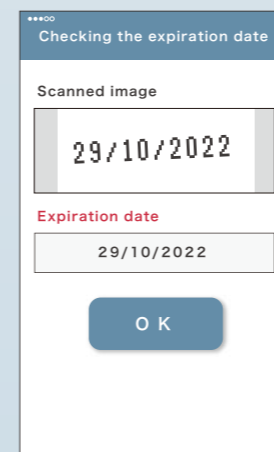
On-site workers can promptly make an inquiry to service staff if they face a device problem, mitigating their stress and increase their productivity.



**STYLE 02** | Manufacturing

### Appropriate handling of and response to a detected defect

Details of a defect detected during equipment maintenance work can be reported precisely with photos to enable on-site staff to quickly respond to the problem.



**STYLE 03** | Retailing

### Check expiration dates faster

Instead of visually checking the expiration date, you can check the date quickly and accurately by using the character recognition, thereby reducing your workload and saving time.

# Outstanding robustness.

## Greatest robustness in its product class\*

\* For mobile barcode terminals for business use, as of October 2020, surveyed by the company

Highest-level resistance against 3-meter drops in its product class.  
Has passed the drop durability test of 1 meter x 2,000,  
making it robust enough for daily use.

### Designed to provide high resistance against shocks

Uniquely designed to provide high resistance against drops on concrete floors with a frame containing light and rigid metal and an elastomer bumper to absorb shocks.

### Lasting clear visibility with a tempered glass screen

For the display, AGC's Dragontrail® Pro is adopted for resistance against scratching and to provide high visibility on a long-term basis.

### Able to withstand harsh environments

With IP67-compliant resistance against water and dust, the terminal can be used outdoors in rainy weather and in dust-filled factories alike with peace of mind.



# Scan faster, works harder.



Equipped with a new decode engine and high-density sensor, BHT-M60 provides outstanding scanning performance. The Qualcomm® SDM660, which is an industry top-level CPU (2.2GHz, Octa-Core CPU), enables high-speed processing. Comfort in scanning helps increase the efficiency of your daily operations.

## Just "trace" for serial scanning



By adopting the industry's top-level CPU, we have tripled the scanning speed compared with that of conventional products to about 30 labels per second. With the terminal, you do not need to scan the labels one by one. Instead, just trace the labels of items on the shelves and those of stacked items for serial scanning. Perform a full day's worth of inventory work in half the time, maximizing efficiency.

Conventional product	About 30 labels per second
<b>BHT-M60</b>	

Note: When labels specified by the company are used and are scanned sequentially at a fixed distance



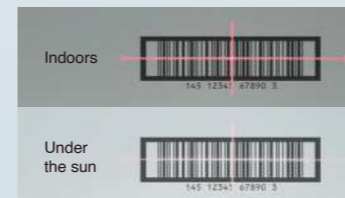
For details of scanning, please refer to the page.

## Just "aim" for easy scanning



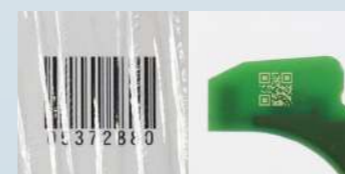
### Can easily scan the label (code) from a distance of 1 meter.

We have adopted a high-density sensor so that codes can be scanned without fail even from a distance. Scan codes easily while holding the terminal in a comfortable position without the need to stand up or crouch down repeatedly. Codes can be scan easily even through glass.



### Needs no skills for scanning

The laser marker, which provides high visibility even under the sun, eliminates the need to acquire skills to read labels covered with wrapping film and enables reading labels outdoors.



### Can scan even difficult-to-read labels

We have adopted a new decode engine and high-density sensor and designed the optimal angle for operability in a comfortable position with no specular reflection effect. As a result, even labels covered by wrapping film, blurred/stained/deformed labels, and DPM codes can be scanned by the terminal.

## Designed for comfortable use



### Easy grip handle

Easy to grip thanks to the contoured body and non-slip texture. Designed for easy grasping with the fingers, which also helps increase keystroke accuracy.



### Keys are easy to press even while wearing gloves

The dome-shaped keys are laid out in a manner that enables smooth data entry with any finger.



### Screen brightness adjusts automatically to reduce eye stress on the user

Equipped with a new function to automatically adjust the screen brightness according to the environment, thereby reducing the user's stress and helping increase their operational efficiency.



### Universal design

Universal colors and fonts are adopted in consideration of differences in color perception, thereby making it a hand-held terminal that is easy for many people to use.



World's first mobile barcode terminal, the "BHT-1"

## Reliable quality developed by a leading automotive component supplier for its own manufacturing facilities

DENSO supplies automotive components to automakers across the world. In the 1970s, the company developed unique automatic recognition technology to increase efficiency at its own manufacturing facilities. DENSO's commitment to providing high-quality and high-reliability automotive components has been passed down to DENSO WAVE for the provision of the BHT series.

### Advanced OCR

With the newly adopted OCR engine, even blurred and stained labels and labels with different character heights can be scanned correctly.



### NFC supported

The scanner is equipped with an NFC antenna to read ID data.



Can scan data on driver's licenses and employee ID cards



# Stress-free and comfortable operation

Providing more work method options by offering an alternative charging method



## Direct charging supported

Widely used Type-C cable supported, allowing recharging with mobile batteries. You can recharge and forward files from PC at once. Qualcomm® Quick Charge™ 3.0 adaptor is also supported for quick charging.

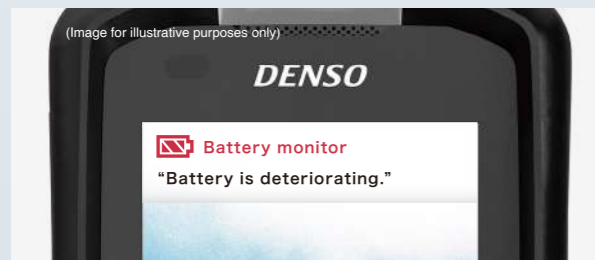


## Easy-to-replace battery

The large release lever is intended to allow for easy battery replacement. Replace the battery easily, even if it runs out while you are using the terminal. We offer two types of batteries that can be used according to the usage.

Operating time*	
1900mAh battery	14 hours
3200mAh battery	24 hours

\* The operating time is a reference value at a room temperature and may differ depending on the operating conditions.  
\* This is a result of measurement based on the JEITA HT Standard Operation Mode G, and may change depending on the operating environment and system.



## Detection of battery deterioration to prevent related incidents

The terminal detects battery deterioration and warns you when to replace.

## Substantial communication features



### High-speed 4G

4G LTE-compatible BHT allowing voice calls and high-speed data communication while working outdoors.



### Acquirable the highly precise location

GPS + satellite navigation system supported, allowing getting the highly precise location. Status of works can be managed precisely in real time. (Supported: A-GPS/GLONASS/QZSS/BeiDou/Galileo)



### Higher communication speed for higher operational efficiency

As the terminal is usable in an IEEE802.11 ac high-speed communication environment, you can comfortably conduct operations even with a heavy data load, including using a browser, uploading data to the server, and downloading software applications.

# Full support from introduction to operation

DENSO WAVE provides opportunities for new work methods through its products, support for introduction and after-sale service.

## DENSO WAVE specialists support introduction and transition

Our special BHT team helps customers introduce the products by capitalizing on its long-accumulated experience, know-how and expertise in BHT products. DENSO WAVE team will make proposals, including options for software, to meet the customers' requests, such as "But we don't want to make any changes to our current operations," and "We want to increase our operational efficiency."

### [Examples of support provided by the BHT team]

- Support for selection of devices
  - Support for change of OS
  - Developing apps and making proposals to help customers solve their respective problems
  - Communication environment optimization service (addition cost)
- We can conduct a survey to select the most appropriate locations for access points and optimize channel design to propose the optimal wireless environment for customers.

## Extensive lineup of software products

We provide our own software products developed in-house to help customers increase their operational efficiency throughout the development, kitting, operation and maintenance processes. We can also develop new software products to help customers solve their respective problems. In addition, we introduce our partner companies' apps that can be used with BHT products.

### [Examples of software products that support work method reforms]

- Central management software that will change the work style of system managers [BHT DMS/BHT Remote]
- Security software suitable for your business terminals
- Software that helps you easily create and customize operational apps [BHT Booster]

For software details:  
BHT- M60 product page



## After the start of operation

### ■ Speedy support for the solution of problems

For questions and problems related to daily operations, our engineers will provide prompt responses in each area across the world and our local customer service staff will deal with issues with speed and integrity.

### ■ 3-year warranty for hardware \*Prior reservation needed

We provide a 3-year free-of-charge post-purchase repair service. We offer a quick response both in Japan and across our bases in the world.

### ■ Ongoing OS support \*Prior reservation needed

For Android™, even after Google support for the version indicated on the BHT is ended, we will continue to provide security patches that we have developed ourselves as part of our OS support service to customers.