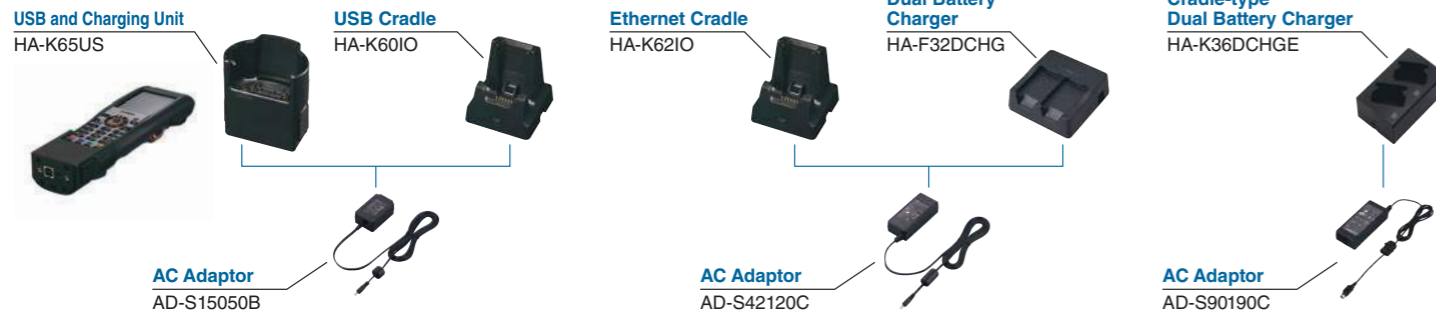


DT-X200-10E/11E/20E/21E

DT-X200-41E



SPECIFICATIONS

	DT-X200-10E	DT-X200-20E	DT-X200-11E	DT-X200-21E	DT-X200-41E
<b>CPU</b>	Marvell® PXA320 806 MHz				
<b>OS</b>	Microsoft® Windows® Embedded Compact 7 English Version				
<b>Durability</b>	Drop Durability 3.0 m in height onto concrete floor*1				
	Dust/Splash-Proof IP67 (compliant with IEC60529 standard)*2				
<b>Memory</b>	Operating Temperature -20°C to +50°C				
	RAM 256 MB				
<b>Display</b>	ROM 512 MB				
	LCD 6.9 cm (2.7 inches) Blanview® TFT Color LCD with Touch Panel				
<b>Input</b>	Indicator 3-color (red, orange, green) LED x 1, 2-color (orange, blue) LED x 1				
	Keyboard Numeric (alphabet) keys, CLR key, execute key, cursor keys, power key, Fn key, F1 to F8 keys, L/R keys				
<b>NFC Reader/Writer</b>	Trigger Key 3 (at center, left, and right)				
	Touch Panel Yes (Resistive type)				
<b>Scanner</b>	Frequency 13.56 MHz				
	Contactless Smart Card ISO 14443 Type A (MIFARE®), ISO 14443 Type B, Felica®				
<b>Wireless LAN</b>	RFID Tag ISO 15693 (I CODE® SLI / TAG-it® / my-d®)				
	Type	Semi-conductor laser light	C-MOS imager, 832 x 640, monochrome	Semi-conductor laser light	C-MOS imager, 1280 x 1024 (wide SXGA), monochrome
<b>Interface</b>	Resolution	0.127 mm	1D: 0.127 mm 2D Stacked: 0.168 mm 2D Matrix: 0.191 mm	0.127 mm	1D: 0.127 mm 2D Stacked: 0.127 mm 2D Matrix: 0.169 mm
	Card Slot	microSD Memory Card (SDHC) x 1			
<b>Power</b>	USB Port	Version 1.1 (Host/Client)			
	Audio	Microphone: Built-in (monaural), Speaker: Built-in (monaural)			
<b>Vibrator</b>	Main Power	Large-capacity battery pack (HA-K23XLBAT, 2860 mAh)			
	Memory Backup	Lithium battery (rechargeable) on board			
<b>External Dimensions (WxDxH)</b>	Comes as standard				
	Approx. 66 [57] x 187 x 32 [35] mm Figures marked with an asterisk * indicate the grip part.				
<b>Weight (Including Large-capacity lithium-ion battery pack)</b>	Approx. 41 mm (the height of scanner part)		Approx. 44 mm (the height of scanner part)		
	Approx. 290 g (with HA-K23XLBAT)		Approx. 295 g (with HA-K23XLBAT)		
<b>Accessories</b>	USB and Charging Unit (HA-K65US)/Battery Pack (HA-K23XLBAT)/USB Cable (DT-380USB-A)/AC Adapter (AD-S15050B)/AC Cord (AC-CORD-EU) Hand Strap				

\*1 Drop-to-concrete resistance: 6 surfaces, 4 corners, 1 cycle. The value is a test value, not a guaranteed value.  
\*2 No ingress of dust. No ingress of water even if temporarily immersed in water under defined conditions of pressure when all covers for connectors, etc. are closed.

DT-X200-10E / DT-X200-11E

Type	Readable Distance	Readable symbologies
1D Symbologies	40mm   550mm	EAN8, EAN13, UPC-A/E, Codabar(NW-7), Code39, Code93, Code128(GS-128(EAN-128)), Interleaved2of5(ITF), MSI, IATA, Industrial2of5, GS1 DataBar Omnidirectional, GS1 DataBar Limited, GS1 DataBar Expanded, GS1 DataBar Truncated
2D Stacked Symbologies		GS1 DataBar Stacked, GS1 DataBar Expanded Stacked, GS1 DataBar Stacked Omnidirectional

DT-X200-20E / DT-X200-21E

Type	Readable Distance	Readable symbologies
1D Symbologies	48mm   400mm	EAN8, EAN13, UPC-A/E, Codabar(NW-7), Code11, Code39, Code93, Code128(GS-128(EAN-128)), Interleaved2of5(ITF), MSI, Code32, ISBT, GS1 DataBar Omnidirectional, GS1 DataBar Limited, GS1 DataBar Expanded, GS1 DataBar Truncated
2D Stacked Symbologies	43mm   230mm	PDF417, Micro PDF, Composite, Codablock F, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked, GS1 DataBar Stacked
2D Matrix Symbologies	51mm   300mm	Aztec, DataMatrix, Maxicode, QR Code, MicroQR, HanXin

DT-X200-41E

Type	Readable Distance	Readable symbologies
1D Symbologies	130mm   2500mm	EAN8, EAN13, UPC-A/E, Codabar(NW-7), Code11, Code39, Code93, Code128(GS-128(EAN-128)), Interleaved2of5(ITF), MSI, Code32, ISBT, IATA, GS1 DataBar Omnidirectional, GS1 DataBar Limited, GS1 DataBar Expanded, GS1 DataBar Truncated
2D Stacked Symbologies		PDF417, Micro PDF, Composite, Codablock F, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked, GS1 DataBar Stacked
2D Matrix Symbologies	100mm   2000mm	Aztec, DataMatrix, Maxicode, QR Code, MicroQR



# High-Level Fusion of Strength and Speed



- Unique reinforced structure that delivers rugged performance to withstand drops from up to 3.0 meters
- IP67 water and dust resistant, -20°C to 50 °C operating temperature range
- Equipped with a high-performance 806 MHz CPU, generous memory capacity of 256 MB of RAM / 512 MB of flash ROM, and Windows® Embedded Compact 7
- Equipped with IEEE802.11 a/b/g/n standard wireless LAN compatible with WPA2 security and Bluetooth Ver.2.1 (Class 2) as standard.
- Models equipped with a laser scanner with enhanced scanning performance, C-MOS Imager, and full-range scanner
- Unique power-saving design to deliver long operating time.



# Exceptional Toughness and Speed

Introducing the DT-X200 range of handheld terminals, which set a new performance standard born of the fusion of strength and speed.

A body shape optimized by human-centered design and a rugged reinforced structure that can withstand drops from a height of up to 3.0 meters ensure the durability and usability necessary for use in extreme environments. A high-performance CPU greatly increases processing speed.



## TOUGHNESS

Built to withstand use in demanding environments

### ■ Unique Reinforced Structure

Strength has been increased by integrating the LCD, main circuit board, and inner case in a robust, three-layer structure. In addition, the upper and lower cases feature an improved design to provide impact resistance and prevent twisting or misalignment if a device is dropped. These rugged terminals reflect the pursuit of durability right down to the smallest detail. For example, the entire body, battery cover, and other areas are reinforced with a special impact-absorbing elastomer resin.

### ■ Superb Environmental Durability

The DT-X200 range of terminals are designed to withstand hard use in warehouse and other similar environments. The device can resist drops from heights of up to 3.0 meters\*1 and can be used with confidence even in situations where rough handling is likely. They are compliant with IP67\*2 and can operate even in sub-zero temperatures (down to -20°C). This results in reliable performance in demanding environments, including outdoors in the rain and in dusty warehouses.

\*1 Drop-to-concrete resistance: 6 surfaces, 4 corners, 1 cycle. The value is a test value, not a guaranteed value.

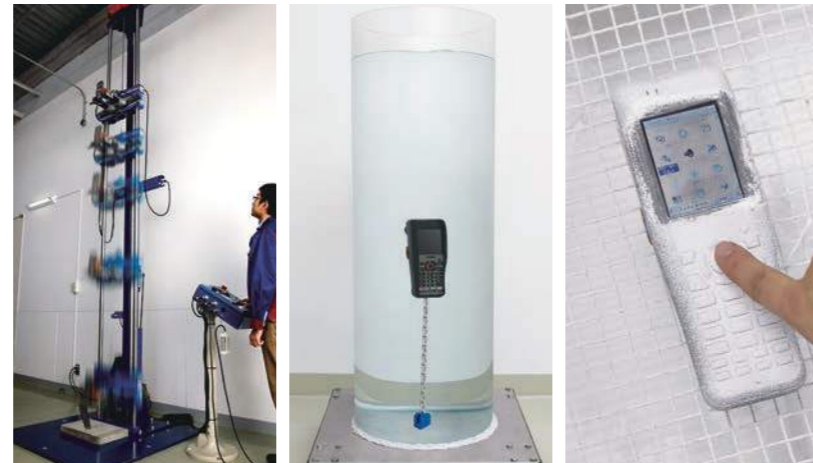
\*2 No ingress of dust. No ingress of water even if temporarily immersed in water under defined conditions of pressure when all covers for connectors, etc. are closed.

### ■ Long Operating Time

A unique power-saving design provides extended operation even in applications where a browser connection or other permanent wireless LAN connection is required. A high-capacity battery pack, and effective power management features such as wireless standby mode\* and quick resume, ensure a very long battery life.

\* A wireless LAN standby low-power state for operating only the functions needed to maintain a wireless LAN connection while shutting down the display and other devices.

Environmental testing that assumes use in extreme environments



3-meter drop resistance test

Waterproof test

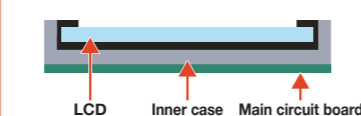
Dustproof test

## THE TECHNOLOGY OF TOUGHNESS

Leading-edge technology that supports the further evolution of durability

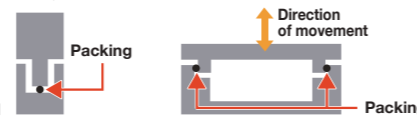
### Three-layer structure

The area around the LCD is protected by a rubber cover. In addition, the LCD and main circuit board are securely fixed to the middle case to form an integrated component and increase resistance to shocks.



### Airtight packing

To prevent water ingress, packing material is inserted between the protruding and recessed areas where the upper and lower cases fit together. Arrangement of packing material perpendicular to the direction of movement of moving parts, such as the battery cover and USB connector cover, ensures stable water resistance.



## Uncompromising pursuit of usability from a body shape based on human-centered design principles

### Key Design for Excellent Operating Performance

The key design allows easy operation even when the user is wearing work gloves. To reduce data entry errors, the keys have been enlarged and responsiveness has been enhanced by widening the key pitch and key stroke. The terminal has an optimized key layout, and the trigger keys, cursor keys, enter key, and other frequently used keys are multifunction keys easily accessible for comfortable one-handed operation.

### Highly Visible LCD, Even Outdoors

The DT-X200 terminals are equipped with a 2.7-inch color transmissive TFT LCD that features intuitive touch panel operation. This LCD provides excellent visibility indoors and in sunlight.



## SPEED & SCANNING

Major specification enhancements for high-speed processing, high-speed communications and high-speed reading

### ■ High-Performance CPU and Generous Memory Capacity

The DT-X200 terminals are equipped with a Marvell® PXA320 (806 MHz) CPU that delivers high-speed processing. They feature a generous 256 MB of RAM and 512 MB of flash ROM. They have all the power necessary to smoothly and efficiently run demanding applications.

### ■ High-Performance Laser Scanner\*

The laser scanner offers functions that support efficient scanning, including scan width control, laser focus, and vibrator alert. Furthermore, a scanner module improvement has increased processing speed, and improved the scanning of hard-to-read barcodes. These high-performance specifications make fast, more accurate scanning possible.

\*Equipped models: DT-X200-10E/11E

### ■ Full-Range Scanner with Maximum Reading Depth of 20 Meters\*1

A built-in full-range scanner with auto focus can read codes\*2 up to 20 meters away. This means that a forklift operator can directly scan barcodes on pallets and shipping cartons from the operator's seat. The scanner is even capable of reading location codes at the top of storage racks from a long distance, enabling the safe performance of product inspections when there is danger from falling objects.



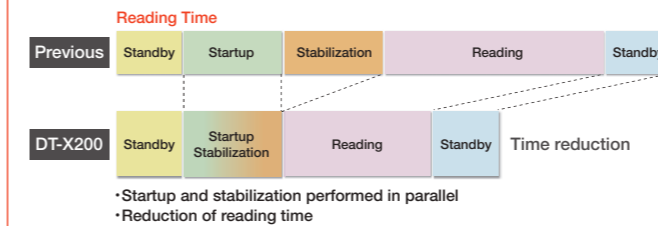
\*1 Equipped model: DT-X200-41E

\*2 For two-digit Data Matrix codes with resolution of 20 mm (CASIO measurement environment)

\*Simulation of full-range scanner use

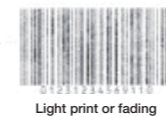
### High-speed reading

Reading time has been reduced by tuning the device's processing methods to save tenths of a second.



### Scanning of hard-to-read barcodes

Recognition accuracy when scanning damaged or poorly printed barcodes has been increased by doubling the number of filter patterns used for analysis and optimizing other parameters.



### ■ Advanced C-MOS Imager for 1D and 2D Code Reading\*

The DT-X200 terminals support reading of a wide variety of 1D and 2D code symbologies. Use of the latest module and decoder improves performance on hard-to-read barcodes and increases hand jitter tolerance.

\*Equipped models: DT-X200-20E/21E

### Scanning of hard-to-read codes

Improved module and decoder performance have increased accuracy in reading hard-to-read codes, such as lightly printed, faded, blurred, or soiled images.



### Increased hand jitter tolerance

Use of a global shutter improves performance in capturing moving objects by a factor of ten or more. The scanner reliably reads images even if jittering occurs.

### ■ Support for RFID Tags and Contactless Smart Cards\*

Some of the DT-X200 models are equipped with a reader/writer that supports the NFC IP2 short-distance wireless communication standard and is capable of recognizing ISO15693-compliant RFID tags (13.56 MHz) and contactless smart cards such as MIFARE®. In addition to supporting a variety of solutions that utilize RFID tags, such as document and parts control systems, these terminals offer enhanced login security using contactless smart card authentication.



\*Equipped models: DT-X200-11E/21E/41E

### ■ Enhanced Wireless LAN Function

The DT-X200 terminals have an integrated wireless LAN module that complies with IEEE802.11b/g standards in the 2.4 GHz band, the IEEE802.11a standard for communication in the 5 GHz band, and the IEEE802.11n standard for higher speed communications. This feature allows efficient real-time operation.

### Wireless LAN Operation Standby and Quick Resume

The DT-X200 terminals are equipped with functions that support efficient wireless LAN operation. They include a wireless standby mode for maintaining a low-power wireless connection for fast access to a wireless LAN and a quick resume feature for restoring communication from the terminal to the LAN within a few seconds when it returns from suspend mode.

### ■ Equipped with Bluetooth® 2.1

Bluetooth® Ver. 2.1 (Class 2), for wireless connection with mobile printers and other devices, is integrated as a standard feature. Furthermore, the DT-X200 terminals come with the Enhanced Data Rate\* (EDR) function for high-speed communication.

Note: The connected device must also support the EDR function.

## SOFTWARE

A range of useful features for smooth, efficient management and operation

### ■ Windows® Embedded Compact 7 Operating System

The operating system is Windows® Embedded Compact 7. A Windows®-based, highly versatile development environment that increases application development productivity.

### ■ Equipped Tools to Support Wireless Environment Construction

Dedicated tools that support wireless environment construction are available, including an installation assistance function that automatically performs terminal settings, configuring parameter settings in accordance with the access point or wireless connection environment, and automatically configures the IP address and other wireless settings.