MV-IDH7000B

Wireless Handheld Code Reader

CE KC

Introduction

MV-IDH7000B wireless handheld code reader decodes different types of 1D and 2D codes rapidly. With the built-in intelligent code reading algorithm, it can easily decoding codes with spots, defects and low contrast ratio, and entry level DPM codes. It adopts illumination system to provide direct lighting and diffused reflection lighting. With adaptive smart bases, the code reader can realize charging and data communication.

Key Feature

- Built-in code reading algorithm for decoding different types of 1D and 2D codes.
- Provides good robustness to read codes with spots, defects and low contrast ratio.
- Adopts Bluetooth 5.0 wireless technology to provide convenient and efficient operations.
- With smart bases, parameter configuration and device management via IDMVS client software are supported.
- Adopts 3150 mAh battery to provide long battery life.
- Adopts illumination system to provide direct lighting and diffused reflection lighting.
- Supports IP65 and drop height of 1.8 m.

Available Model

- MV-IDH7000B/10NR/07RN/US
- MV-IDH7000B/10SR/07RN/US
- MV-IDH7000B/10NR/07RN/LS
- MV-IDH7000B/10SR/07RN/LS
- MV-IDH7000B/10HHD/07RN/US/PM
- MV-IDH7000B/10HHD/07RN/LS/PM
- MV-IDH7000B/10ER/07RN/US/PM

Accessories

- Code reader with near distance (without smart base) MV-IDH7000B/10NR/07RN
- Code reader with standard distance (without smart base) MV-IDH7000B/10SR/07RN
- Smart base with USB interface: MV-IDH7000B/SBASE/U
- Smart base with Fast Ethernet: MV-IDH7000B/SBASE/L

Applicable Industry

PCB, new energy, consumer electronics, semiconductor, automobile parts, etc.

Specification

Model	MV-IDH7000B/10NR/07RN/US	MV-IDH7000B/10NR/07RN/LS
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN8, EAN13, ITF25, ITF14, UPCA, UPCE 2D codes: QR Code, Data Matrix	
Min. accuracy	3 mil	
Max. frame rate	50 fps	
Sensor type	CMOS, global shutter	
Pixel size	3 μm × 3 μm	
Sensor size	1/4"	
Resolution	1280 × 800	
Depth of field*	Code 39 (3 mil): 15 mm to 60 mm Code 39 (5 mil): 5 mm to 80 mm Data Matrix (5 mil): 10 mm to 70 mm Data Matrix (10 mil): 0 mm to 110 mm QR Code (5 mil): 10 mm to 70 mm	
Field of view	Horizontal 31°, vertical 20°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Bluetooth	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE	
Wireless range	100 m (open range)	
Communication protocol	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, USB (HID/CDC)	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, TCP Client, TCP Server, Serial, FTP, UDP, Profinet, Ethernet/IP
Electrical feature		
Data interface	USB 2.0, DC terminal	Fast Ethernet (100 Mbit/s), RS-232, DC terminal
Battery	3150 mAh, chargeable lithium battery	
Charging time	Shutdown mode: USB 3.0 (5 V, 1 A): 4h, 12 VDC (12 V, 2 A): 3.5 h	
Endurance	13 h (interval scanning, once in 2 seconds)	
Power supply	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 12 VDC to 24 VDC
Max. power consumption	Wireless handheld code reader: standby mode: 1.1 W @ 3.8 VDC, working mode: 6.4 W @ 3.8 VDC, sleep mode: 0.8 W @ 3.8 VDC Smart base: 7.5 W @ 5 VDC (USB), 7.5 W @ 12 VDC (DC terminal)	Wireless handheld code reader: standby mode: 1.1 W @ 3.8 VDC, working mode: 6.4 W @ 3.8 VDC, sleep mode: 0.8 W @ 3.8 VDC Smart base: 7.5 W @ 12 VDC
Mechanical		
Focal length	6.7 mm	
Lens mount	M5.8-mount	
Ambient illumination	0 lux to 100000 lux	
Light source	Direct lighting: white LED Diffused reflection lighting: red LED	
Aiming system	Cross laser aiming	
Prompt	LED indicator, buzzer, vibrator	

Dimension	Wireless handheld code reader: 73.4 mm × 104 mm × 215.2 mm (2.9" × 4.1" × 8.5")
	Smart base: 248.4 mm × 106.3mm × 69.4 mm (9.8" × 4.2" × 2.7")
Weight	Wireless handheld code reader: Approx. 410 g (0.9 lb.)
	Smart base: Approx. 380 g (0.8 lb.)
Ingress protection	IP65
Temperature	Working temperature: −10 °C to 50 °C (14 °F to 122 °F)
	Storage temperature: −20 °C to 60 °C (−4 °F to 140 °F)
	Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)
Humidity	20% RH to 95% RH (no condensation)
Drop height	1.8 m
General	
Client software	IDMVS
Certification	CE, KC

Test condition: Environment temperature=25 °C (77 °F), ambient illumination=250 lux filament lamp, Hikrobot's test symbologies are used.

Specification

Model	MV-IDH7000B/10HHD/07RN/US/PM	MV-IDH7000B/10HHD/07RN/LS/PM
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN8, EAN13, ITF25, ITF14, UPCA, UPCE 2D codes: QR Code, Data Matrix	
Min. accuracy	3 mil	
Max. frame rate	50 fps	
Sensor type	CMOS, global shutter	
Pixel size	3 μm × 3 μm	
Sensor size	1/4"	
Resolution	1280 × 800	
Depth of field*	Data Matrix (2 mil): 0 mm to 11 mm Data Matrix (5 mil): 0 mm to 20 mm Code 39 (5 mil): 0 mm to 29 mm QR Code (10 mil): 0 mm to 40 mm	
Field of view	Horizontal 31°, vertical 20°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Bluetooth	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE	
Wireless range	100 m (open range)	
Communication protocol	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, USB (HID/CDC)	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, TCP Client, TCP Server, Serial, FTP, UDP, Profinet, Ethernet/IP
Electrical feature		
Data interface	USB 2.0, DC terminal	Fast Ethernet (100 Mbit/s), RS-232, DC terminal
Battery	3150 mAh, chargeable lithium battery	
Charging time	Shutdown mode: USB 3.0 (5 V, 1 A): 4h, 12 VDC (12 V, 2 A): 3.5 h	
Endurance	13 h (interval scanning, once in 2 seconds)	
Power supply	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 12 VDC to 24 VDC

Max. power consumption	Wireless handheld code reader: standby mode: 1.1 W @ 3.8 VDC, working mode: 6.4 W @ 3.8 VDC, sleep mode: 0.8 W @ 3.8 VDC Smart base: 7.5 W @ 5 VDC (USB), 7.5 W @ 12 VDC (DC terminal)	Wireless handheld code reader: standby mode: 1.1 W @ 3.8 VDC, working mode: 6.4 W @ 3.8 VDC, sleep mode: 0.8 W @ 3.8 VDC Smart base: 7.5 W @ 12 VDC
Mechanical		
Focal length	6.7 mm	
Lens mount	M5.8-mount	
Ambient illumination	0 lux to 100000 lux	
Light source	Direct lighting: white LED Diffused reflection lighting: red LED	
Aiming system	Cross laser aiming	
Prompt	LED indicator, buzzer, vibrator	
Dimension	Wireless handheld code reader: 73.4 mm × 104 mm × 215.2 mm (2.9" × 4.1" × 8.5") Smart base: 248.4 mm × 106.3mm × 69.4 mm (9.8" × 4.2" × 2.7")	
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Temperature	Working temperature: −10 °C to 50 °C (14 °F to 122 °F) Storage temperature: −20 °C to 60 °C (−4 °F to 140 °F) Charging temperature: 0 °C to 40 °C (32 °F to 104 °F)	
Humidity	20% RH to 95% RH (no condensation)	
Drop height	1.8 m	
General		
Client software	IDMVS	
Certification	CE, KC	

Test condition: Environment temperature=25 °C (77 °F), ambient illumination=250 lux filament lamp, Hikrobot's test symbologies are used.

Specification

Model	MV-IDH7000B/10ER/07RN/US/PM
Performance	
Symbologies	1D codes: Code 39, Code 93, Code 128, CodaBar, EAN8, EAN13, ITF25, ITF14, UPCA, UPCE 2D codes: QR Code, Data Matrix
Min. accuracy	5 mil (1D codes), 10 mil (2D codes)
Max. frame rate	50 fps
Sensor type	CMOS, global shutter
Pixel size	3 μm × 3 μm
Sensor size	1/4"
Resolution	1280 × 800
Depth of field*	Code 39 (20 mil): 80 mm to 1000 mm Code 39 (100 mil): ** to 3000 mm Code 128 (5 mil): 180 mm to 270 mm Code 128 (15 mil): 100 mm to 800 mm Data Matrix (10 mil): 160 mm to 310mm Data Matrix (160 mil): ** to 2700 mm

Field of view	Horizontal 31°, vertical 20°
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°
Symbol contrast	20%
Wireless communication	
Bluetooth	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE
Wireless range	100 m (open range)
Communication protocol	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, USB (HID/CDC)
Electrical feature	
Data interface	USB 2.0, DC terminal
Battery	3150 mAh, chargeable lithium battery
Charging time	Shutdown mode: USB 3.0 (5 V, 1 A): 4h, 12 VDC (12 V, 2 A): 3.5 h
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Power supply	Wireless handheld code reader: 3.8 VDC (battery providing power) Smart base: 5 VDC (USB), 12 VDC to 24 VDC (DC terminal)
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Specification

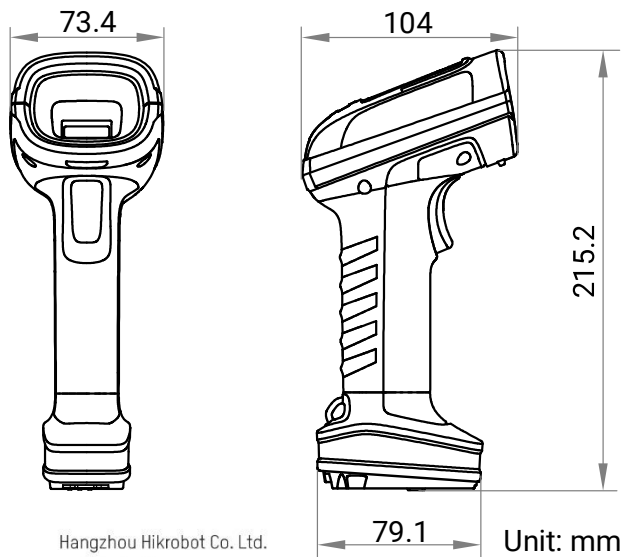| Model	MV-IDH7000B/10SR/07RN/US	MV-IDH7000B/10SR/07RN/LS
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Min. accuracy	3 mil	
Max. frame rate	50 fps	
Sensor type	CMOS, global shutter	
Pixel size	3 µm × 3 µm	
Sensor size	1/4"	
Resolution	1280 × 800	
Depth of field∗	Code 39 (5 mil): 30 mm to 200 mm Code 128 (3 mil): 55 mm to 110 mm Code 128 (20 mil): 56 mm to 660 mm Data Matrix (10 mil): 20 mm to 220 mm QR Code (10 mil): 20 mm to 220 mm QR Code (20 mil): 10 mm to 450 mm	
Field of view	Horizontal 31°, vertical 20°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Bluetooth	BT 5.0, 2.4 GHz to 2.4835 GHz, BLE	
Wireless range	100 m (open range)	
Communication protocol	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, USB (HID/CDC)	Wireless handheld code reader: Bluetooth Smart base: SmartSDK, TCP Client, TCP Server, Serial, FTP, UDP, Profinet, Ethernet/IP
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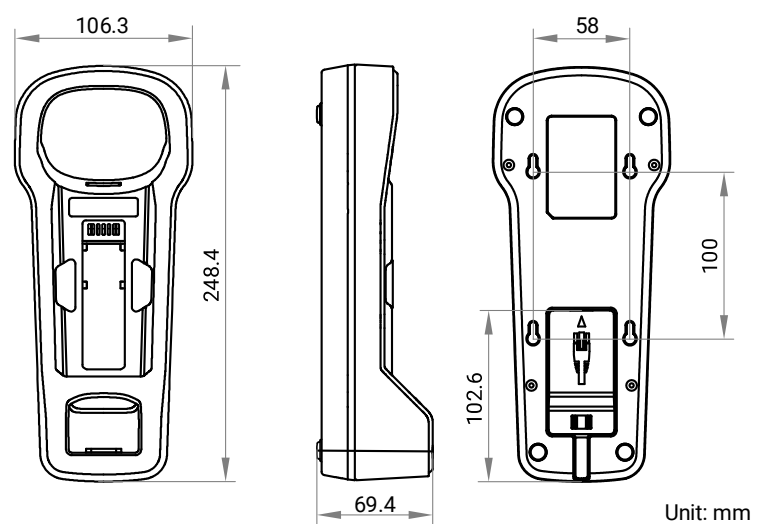
Laser Information of IDH 7000B Series Product	
Laser safety class	Laser 2
Wavelength	650 nm
Beam divergence angle	14.5°
Pulse width	8 ms
Repetitive frequency	50 Hz
Maximum power	1 mW

Dimension

Wireless Handheld Code Reader:

Smart Base:

73.4   104   215.2   79.1   Unit: mm

106.3   248.4   69.4   58   100   102.6   Unit: mm