

TPH9710B

Wireless Handheld Code Reader



Introduction

TPH9710B wireless handheld code reader decodes different types of 1D and 2D codes rapidly in different distances. 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 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 a smart base, 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 2.0 m.

Available Model

- Near distance, with USB charging base set: TPH9710B/10NR/07RN/US
- Standard distance, with USB charging base set: TPH9710B/10SR/07RN/US
- Near distance, with network charging base set: TPH9710B/10NR/07RN/LS
- Standard distance, with network charging base set: TPH9710B/10SR/07RN/LS
- HHD, with USB charging base set: TPH9710B/10HHD/07RN/US
- HHD, with network charging base set: TPH9710B/10HHD/07RN/LS
- Far distance, with USB charging base set: TPH9710B/10ER/12RN/US
- Far distance, with network charging base set: TPH9710B/10ER/12RN/LS
- Near distance, handheld code reader only: TPH9710B/10NR/07RN
- Standard distance, handheld code reader only: TPH9710B/10SR/07RN

Applicable Industry

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

Specification

Model	TPH9710B/10NR/07RN/US (LS)		TPH9710B/10SR/07RN/LS (US)
Performance			
Symbologies	1D codes: Code 39, Code 93, Code 128, GS1-Code128, CodaBar, EAN 8, EAN 13, ISBN, ISSN, ITF 25, ITF 14, UPCA, UPCE 2D matrix codes: QR Code, Data Matrix, MicroQR, Aztec, Han Xin Stacked code: PDF417		
Min. accuracy	3 mil		
Sensor type	CMOS		
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 ¹ QR Code (5 mil): 10 mm to 70 mm	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			
Communication mode	Bluetooth BT 5.0, BLE		
Wireless range	100 m (open area)		
Electrical feature			
Battery	3150 mAh		
Charging time	Network interface: Shutdown mode: 12 VDC (12 V, 2 A): 3.5 h USB interface: Shutdown mode: USB 3.0 (5 V, 1 A): 4 h, 12 VDC (12 V, 2 A): 3.5 h		
Endurance	13 h (interval scanning, once in 2 seconds)		
Mechanical			
Focal length	6.7 mm		
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	73.4 mm × 104 mm × 215.2 mm (2.9" × 4.1" × 8.5")		
Weight	Approx. 410 g (0.9 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	2.0 m		
General			
Client software	IDMVS		
Certification	CE, KC		

Smart Base		
Model	TPH9710B/SBASE/U	TPH9710B/SBASE/L
Communication protocol	SmartSDK, USB (HID/CDC), Bluetooth	SmartSDK, TCP Client, FTP, TCP Server, Profinet, Ethernet/IP, Modbus, UDP, Serial, Bluetooth, FINS, Melsec/SLMP
Data interface	USB 2.0, RS-232, DC terminal ²	Fast Ethernet (100 Mbit/s), RS-232, DC terminal
Power supply	USB: 5 VDC DC terminal: 12 VDC	12 VDC
Current consumption	USB 2.0: 1.5 A (max.), 0.14 A (during standby) DC terminal: 0.7 A (max.), 0.06 A (during standby)	0.7 A (max.), 0.06 A (during standby)
Charging time	Adapter: 4 h, USB: 8 h	4 h
Dimension	248.4 mm × 106.3mm × 69.4 mm (9.8" × 4.2" × 2.7")	
Weight	Approx. 380 g (0.8 lb.)	
Ingress protection	IP40	
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)	

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

1: 0 mm means that the codes can be read within the imaging field of view.

2: The device can be powered via USB or DC terminal. Power supply via DC terminal is recommended.

Specification

Model	TPH9710B/10HHD/07RN/US	TPH9710B/10HHD/07RN/LS
Performance		
Symbologies	1D codes: Code 39, Code 93, Code 128, GS1-Code128, CodaBar, EAN 8, EAN 13, ISBN, ISSN, ITF 25, ITF 14, UPCA, UPCE 2D matrix codes: QR Code, Data Matrix, MicroQR, Aztec, Han Xin Stacked code: PDF417	
Min. accuracy	3 mil	
Sensor type	CMOS	
Resolution	1280 × 800	
Depth of field*	Data Matrix (2 mil): 0 mm to 11 mm ¹ Data Matrix (5 mil): 0 mm to 20 mm ¹ Code 39 (5 mil): 0 mm to 29 mm ¹ QR Code (10 mil): 0 mm to 40 mm ¹	
Field of view	Horizontal 31°, vertical 20°	
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°	
Symbol contrast	20%	
Wireless communication		
Communication mode	Bluetooth BT 5.0, BLE	
Wireless range	100 m (open area)	

Electrical feature		
Battery	3150 mAh	
Charging time	Shutdown mode: USB 3.0 (5 V, 1 A): 4 h, 12 VDC (12 V, 2 A): 3.5 h	Shutdown mode: 12 VDC (12 V, 2 A): 3.5 h
Endurance	13 h (interval scanning, once in 2 seconds)	
Mechanical		
Focal length	6.7 mm	
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	73.4 mm × 104 mm × 215.2 mm (2.9" × 4.1" × 8.5")	
Weight	Approx. 410 g (0.9 lb.)	
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Humidity	20% RH to 95% RH (no condensation)	
Drop height	2.0 m	
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Client software	IDMVS	
Certification	CE, KC	
Smart Base		
Model	TPH9710B/SBASE/U	TPH9710B/SBASE/L
Communication protocol	SmartSDK, USB (HID/CDC), Bluetooth	SmartSDK, TCP Client, FTP, TCP Server, Profinet, Ethernet/IP, Modbus, UDP, Serial, Bluetooth, FINS, Melsec/SLMP
Data interface	USB 2.0, RS-232, DC terminal ²	Fast Ethernet (100 Mbit/s), RS-232, DC terminal
Power supply	USB: 5 VDC DC terminal: 12 VDC	12 VDC
Current consumption	USB 2.0: 1.5 A (max.), 0.14 A (during standby) DC terminal: 0.7 A (max.), 0.06 A (during standby)	0.7 A (max.), 0.06 A (during standby)
Charging time	Adapter: 4 h, USB: 8 h	4 h
Dimension	248.4 mm × 106.3mm × 69.4 mm (9.8" × 4.2" × 2.7")	
Weight	Approx. 380 g (0.8 lb.)	
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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)	

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Specification

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Min. accuracy	10 mil		
Sensor type	CMOS		
Resolution	1280 × 800		
Depth of field*	Code 39 (10 mil): 540 mm to 1200 mm Code 39 (20 mil): * mm to 2800 mm ¹ Code 39 (50 mil): * mm to 5200 mm ¹ Code 39 (100 mil): * to 6800 mm ¹ Code 128 (10 mil): 650 mm to 1000 mm Code 128 (20 mil): * mm to 2800 mm ¹ Code 128 (100 mil): * mm to 6800 mm ¹ Data Matrix (50 mil): * mm to 4000 mm ¹ QR Code (20 mil): 600 mm to 1600 mm QR Code (33 mil): 250 mm to 2600 mm QR Code (100 mil): * to 6500 mm ¹		
Field of view	Horizontal 18°, vertical 10°		
Detection angle	Tilt angle ± 60°, skew angle ± 60°, rotation angle 360°		
Symbol contrast	20%		
Wireless communication			
Communication mode	Bluetooth BT 5.0, BLE		
Wireless range	100 m (open area)		
Electrical feature			
Battery	3150 mAh		
Charging time	Shutdown mode: USB 3.0 (5 V, 1 A): 4 h, 12 VDC (12 V, 2 A): 3.5 h	Shutdown mode: 12 VDC (12 V, 2 A): 3.5 h	
Endurance	13 h (interval scanning, once in 2 seconds)		
Mechanical			
Focal length	12 mm		
Ambient illumination	0 lux to 100000 lux		
Light source	Direct lighting: white LED Diffused reflection lighting: red LED		
Aiming system	Point laser aiming		
Prompt	LED indicator, buzzer, vibrator		
Dimension	73.4 mm × 104 mm × 215.2 mm (2.9" × 4.1" × 8.5")		
Weight	Approx. 410 g (0.9 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)		
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Humidity	20% RH to 95% RH (no condensation)	

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1: It is determined by the code length and detection angle.

2: The device can be powered via USB or DC terminal. Power supply via DC terminal is recommended.

Laser Information of TPH9710B Series Product	
Laser safety class	Laser 2
Wavelength	650 nm
Pulse width	8 ms
Maximum power	1 mW

Accessories

- Smart base with USB interface: TPH9710B/SBASE/U
- Smart base with network interface: TPH9710B/SBASE/L

Dimension

