



WS40

2D Handheld Barcode Scanner Wireless
Specification



About This Specification

Please read all the content of the specification carefully to use the products safely and effectively.

You are advised of keeping it properly for your using reference.

Disclaimer

Please do not dismantle the product or tear up the seal on it, otherwise we won't provide warranty or replacement service.

The pictures in this specification are for reference only. If there are any pictures which not match the actual product, please take actual products as the standard. Updated information is subject to change without notice.

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Service Information

For technical assistant or product service and repair, please contact YidaScan. Visit our website to learn more: www.yidascan.com

Version record

Version number	Version description	Release date
V1.0	Initial release	2021-11-03
V1.1	Added appearance illustration	2022-03-16
V1.2	Added cable diagram	2022-10-25
V1.3	Add cable drawing and appearance dimension drawing	2023-02-07

Catalogue

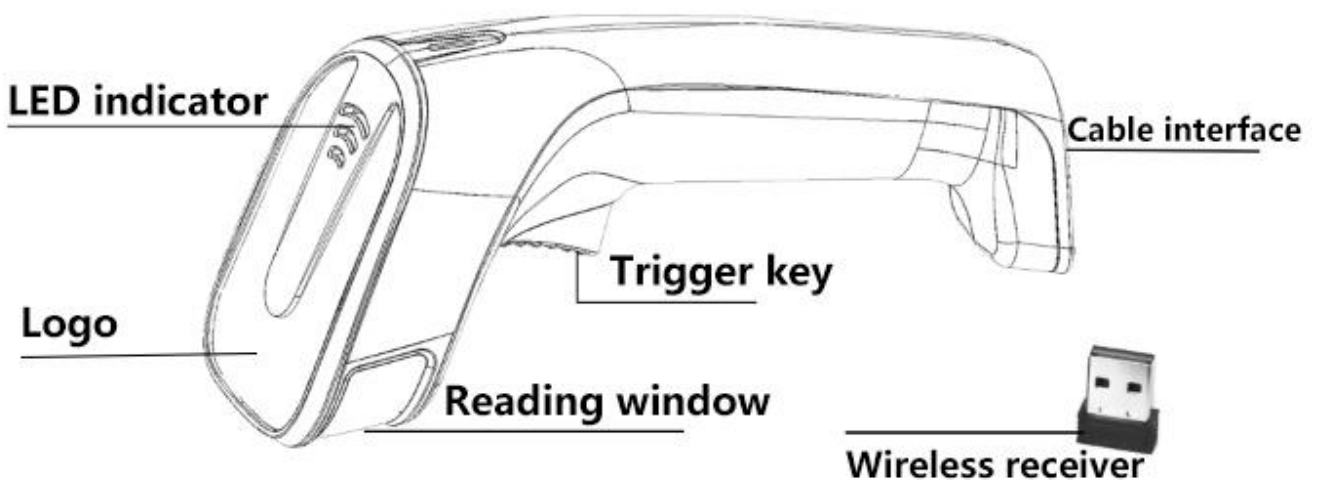
Brief Introduction	5
Appearance	5
Product Feature	6
Application Fields	7
Communication Port	8
Cable Interface	8
Cable Diagram	9
Structural Dimension	10
Performances	11
Wireless Parameter	12
Mechanical/Electrified Performance	13
Working Environment	13
Accessories List	13
Read The Depth Of Field	14

Brief Introduction:

WS40 is a stylish handheld 2D wireless barcode scanner, using advanced CMOS image recognition technology, intelligent image recognition system, equipped with 300,000 pixel HD camera. With excellent reading performance, it can easily read the bar code on different media such as paper and screens. The product uses enhanced wireless 2.4G transmission technology, the effective distance of outdoor open ground can reach more than 60 meters, and can support both wired and wireless transmission methods. It can be mainly used in mobile phone payment, commodity barcode scanning, inventory counting, etc.

Appearance:

The image below shows the appearance of the WS40 with an LED indicator, a buzzer and a LOGO above it. There is a scanning window at the front for scanning bar codes, a cable interface at the rear, and a button at the handle.



【WS40 external view】

Noted:

- > In order to maintain the excellent reading performance of the scanner, keep the product clean.
- > Please use a soft cloth to clean the scan window and do not spray any liquid on the scan window.

Product Feature:

- > Easily identify all major 1D and 2D barcodes in the market with a high-performance MCU.
- > Equipped with 300,000 pixel HD camera, easily read ≥ 3 mil barcode, to meet the daily scanning needs.
- > 2D image technology, with warm white light fill light, no matter the screen and paper bar code can be easily read.
- > Enhanced wireless 2.4G transmission technology, reliable outdoor open ground transmission distance of more than 60 meters, while supporting wired transmission without switching.
- > Support wireless Bluetooth communication mode, support HID, SPP, BLE 3 mode communication protocols.
- > Supports a variety of working modes (manual, sense, continuous) to meet different reading requirements.
- > Supports synchronous mode that is scan and transfer, supports storage mode Large capacity can store more than 20,000 commodity barcodes.
- > Support online upgrade, custom and secondary development.

Application Field:

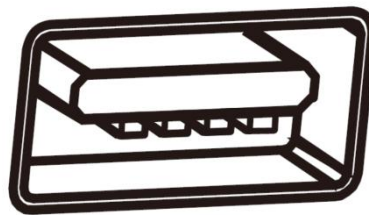
Mobile payment, card coupons, chain retail, express logistics, manufacturing, warehouse management, food traceability, assets inventory, medical and health.



Communication Port

The WS40 wireless barcode scanner must be connected to a host in order to operate, the host can be a PC, Android host or other smart terminal device with either USB-A interface or Bluetooth interface.

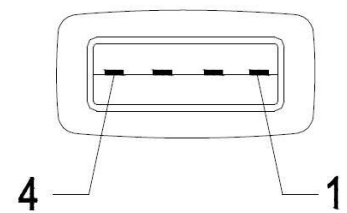
Host USB interface [USB-A female]



Cable Interface

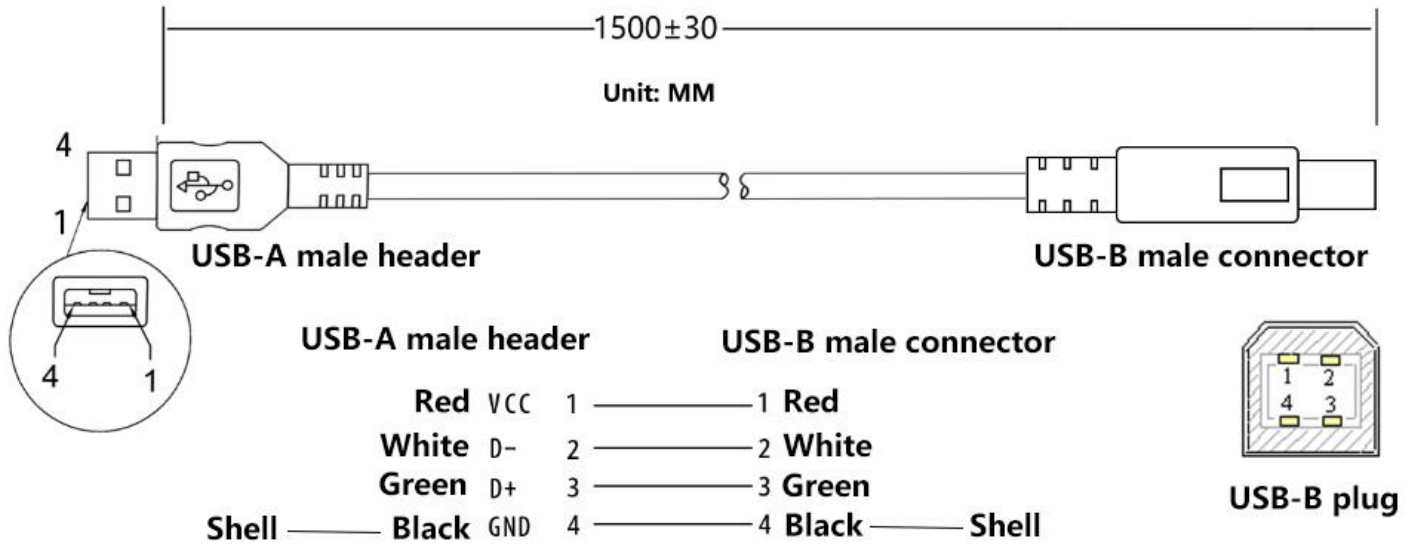
USB cable interface

Pin No.	Function
1	Vcc
2	D-
3	D+
4	GND



Cable Drawing

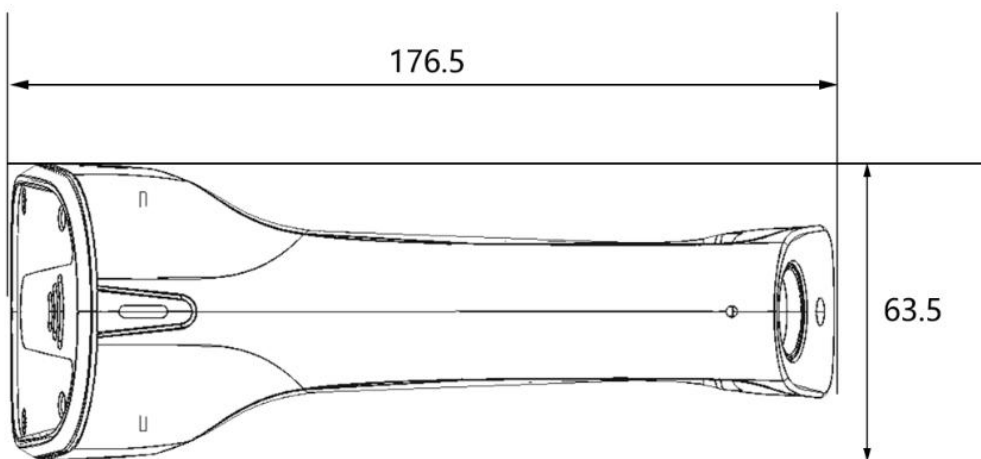
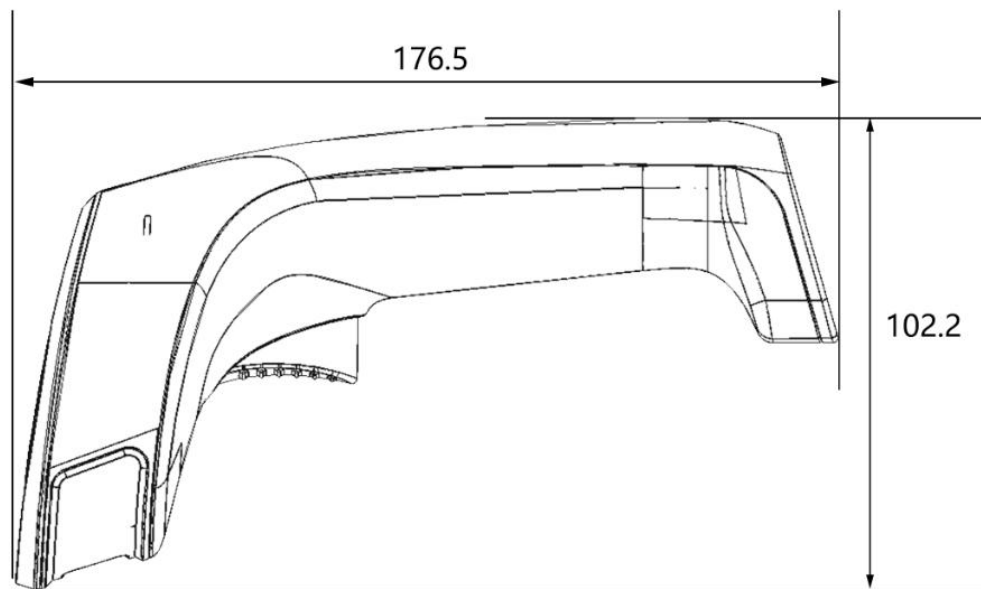
USB Type-B cable specifications



Noted: The cable can be used for wireless charging and USB communication.

Structural Dimension:

Unit: mm



Performance Parameter:

Communication mode	USB (USB-KBW, USB-COM), Wireless 2.4G, Bluetooth 4.2/4.0/3.0/2.1
Image sensor	CMOS
Pixel	300,000 HD pixels, 640*480
Resolution	≥3mil/0.076mm (PCS90%,CODE 39)
Decoding speed	35CM/S
Reading model	Manual reading, sensing reading, continuous reading
Prompt mode	LED indicator light, Buzzer
Field angle	41° * 31°
Reading angle	Test Conditions: CODE39,10mil/0.25mm, PCS90%
	Rotation Roll: ±360°, Tilt Pitch:±60°, Skew: ±55°
Print contrast	≥20%
Ambient illumination	Dark environment, indoor natural light
Symbologies	1D: UPC-A, UPC-E, EAN-8, EAN-13, Code 128, GS1-128, Code 39, Code 32, Code 93, Code 11, Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5(Straight 2 of 5) , Standard 2 of 5 (IATA 2 of 5) ,Codabar (NW-7) , MSI , GS1 Databar(Omnidirectional, Limited, Expanded) , China Post, Tepepen, Febraban, Brazilian bank code, GS1 Composite etc.

2D: QR Code, Micro QR Code, Data Matrix, PDF417, Micro PDF 417, MaxiCode, Aztec, HanXin Code, etc.

Wireless Parameter

Wireless communication mode	Synchronization mode, storage mode
Communication mode	Wired USB(USB-KBW, USB-COM), 2.4G Wireless, Bluetooth (HID, SPP, BLE)
Wireless standard	2.4GHZ (ISM Frequency band) , Bluetooth 4.2/4.0/3.0/2.1
Transmission distance	≥60meters 2.4G, 30meters Bluetooth (Open ground distance)
Storage capacity	350KB (over 20,000 Product code)
Battery capacity	2000mAh
Charging time	About 4.5 hours(5V@1000mA)
Continuous scan time	≥16hours
Standby time	≥4 weeks
Support system	Windows, Mac OS, IOS, Linux, Unix, Android,

Mechanical/electrified performance

Net weight	170g(no including cable)
Apparent dimension	176.5mm(L) x 63.5mm(W) x 102.5mm(H)
Cable length	1.5m
Interface type	USB Type-B
Operating voltage	DC 5V 1A
Electric current	200mA (Average Work)

Working environment

Operating temperature	-0°C to 50°C
Storage temperature	-20°C to 60°C
Working humidity	5% to 95% (non-condensing)
Transport vibration test	10H@125RPM

Accessories list

USB cable	Connect the barcode scanner to the host for charging and communicating.
USB Wireless dongle receiver	Connect to the host for data reception of the barcode scanner.
User guide/manual	It is used to set common functions of the barcode scanner device.

Read the depth of field

Bar code type	Bar code density	Nearest distance	Farthest distance
Code 39	0.1mm(4mil)	35mm	100mm
Code 39	0.25mm(10mil)	35mm	200mm
UPC/EAN	0.33mm(13mil)	40mm	250mm
QR Code	20.0mil	30mm	180mm
PDF 417	6.8mil	40mm	120mm

** Test conditions: ambient temperature =24°C, ambient illumination =300LUX incandescent lamp;

The paper barcode uses the test sample code developed by YidaScan **

** Note: Specifications are subject to change without notice **

** Shenzhen YIDA Auto-ID Technology Co., Ltd. has the final interpretation of this parameter **