YidaScan

YidaScan Medical WS80-2D

Handheld Wireless 2D Barcode Scanner

Specification

Disclaimer

Please read through the manual carefully before using the product and operate it according to the manual. It is advised that you should keep this manual for future reference.

Do not disassemble the device or remove the seal label from the device, doing so will void the product warranty.

All pictures in this manual are for reference only and actual product may differ. The information contained herein is subject to change without prior notice.

The products depicted in this manual may include software copyrighted by Shenzhen YIDA Auto-ID Technology Co., Ltd. or third party. The user, corporation or individual, shall not duplicate, in whole or in part, distribute, modify, decompile, disassemble, decode, reverse engineer, rent, transfer or sublicense such software without prior written consent from the copyright holders.

This manual is copyrighted. No part of this publication may be reproduced, distributed or used in any form without written permission from YidaScan.

Service

If you need more technical support, please call or email us. Visit our website to learn more:

www.yidascan.com

Version

Version	Description	Date
V1.0	Initial Version	2021-06-05
V1.1	Add Structure Diagram	2021-10-16
V1.2	Optimize Depth of Field	2021-12-25
V1.3	Add Wire Diagram	2022-06-11

Content

Introduction

WS80-2D is an industrial handheld wireless 2D barcode scanner. It can scan barcode on media such as paper, commodities and screens with excellent reading performance. This product uses wireless 2.4G transmission technology. The outdoor transmission distance can achieve 60 meters with 2.4G mode. The scanner is mainly used for mobile payment, supermarket and stocktaking.

Appearance

The following picture shows the appearance of WS80-2D. There are LED light and buzzer on the product. The scanning window is used for scanning barcodes. There are some other components such as wire interface and key.
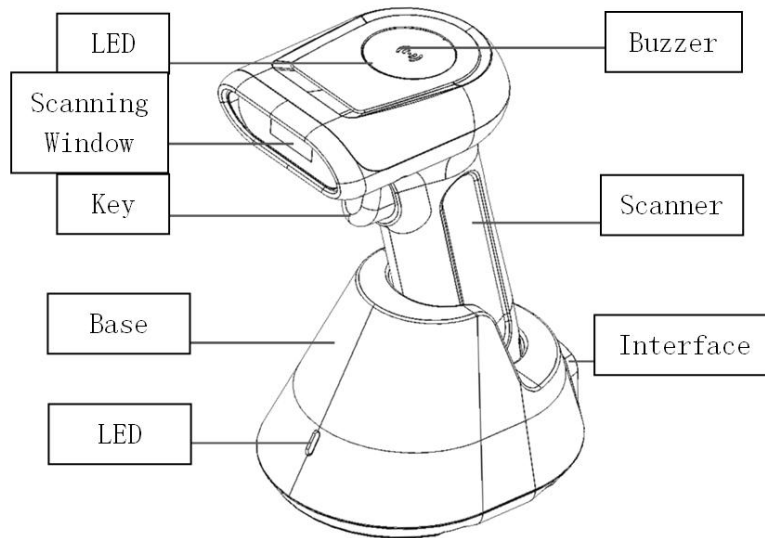
【WS80-2D Appearance】

Attention：

> In order to maintain the excellent reading performance of the scanner, please keep the product clean.

> Please use soft cloth to clean the window. Do not spray any liquid on the window.

Production Features

>It is anti-drop and anti-vibration with highly integrated Two-dimensional decoding structure.

>It can easily identify all mainstream 1D and 2D barcodes in the market with high-performance MCU.

>It can read barcodes above 3MIL to meet daily scanning needs.

>It can easily read barcodes on paper, printing, plastic and screen with 2D imaging technology.

>It supports a variety of working modes to meet different reading needs.

>The outdoor transmission distance can achieve 60 meters with wireless 2.4G transmission technology.

>It supports HID, SPP and BLE modes with Bluetooth technology.

>It supports instant mode and storage mode. It can store 20,000 barcodes.

>It has a charging base, which is used to charge and communicate.

>It has vibration and warning buzzer functions for prompt.

Application

Mobile payment, card voucher verification, chain retail, manufacturing, storage and logistics, warehouse management, food traceability, power meter reading, asset inventory, medical and health care.

Communication Port

The wireless scanner must be connected to a host to operate, and the host can be a PC,

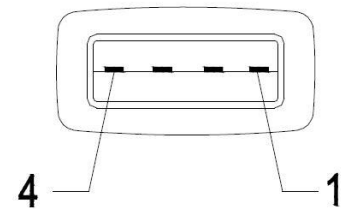Android host, or any other intelligent terminal device with a USB or Bluetooth interface.
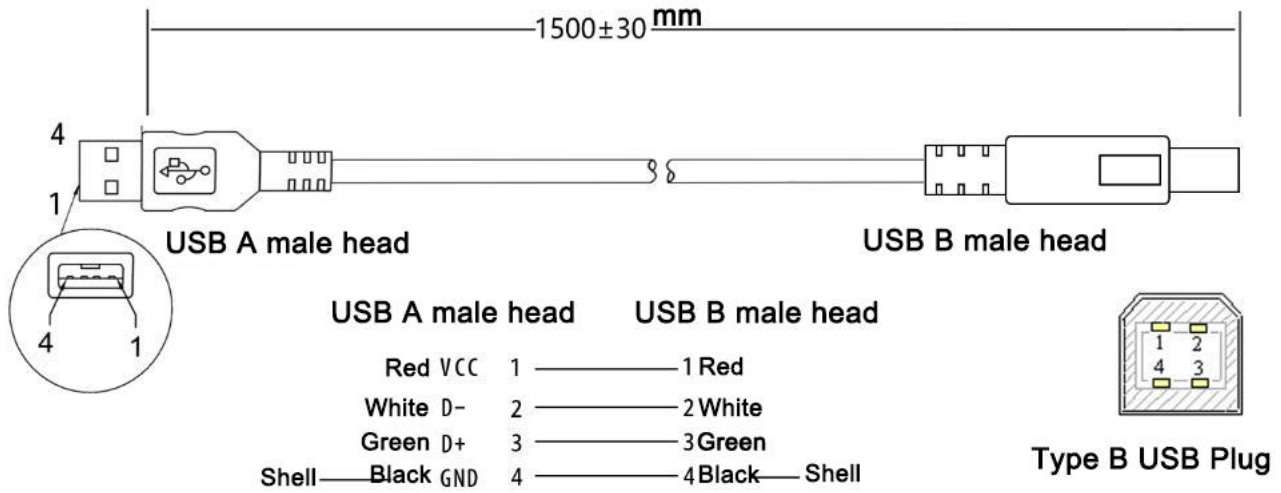
Host USB interface 【USB female】
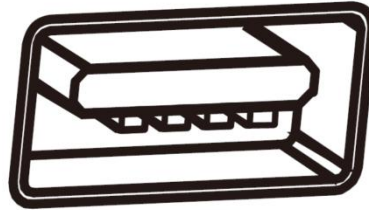
Wire Interface

USB

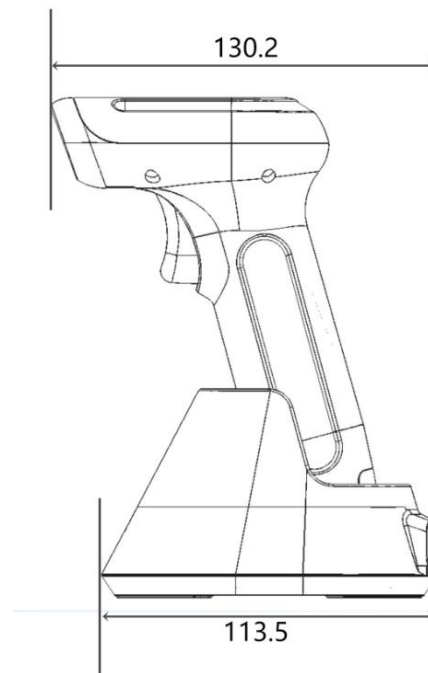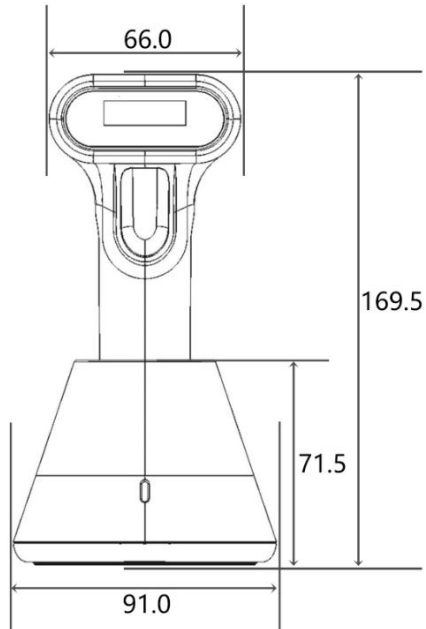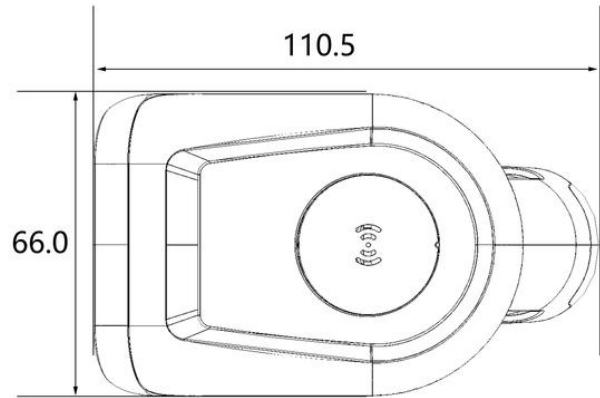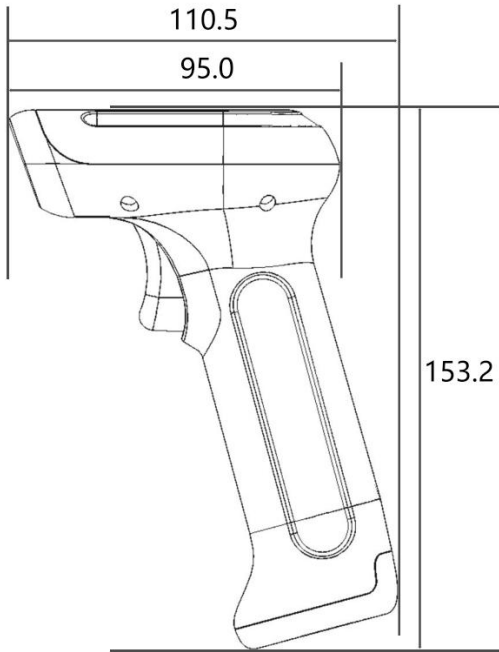| Pin No.	Function
1	Vcc
2	D-
3	D+
4	GND

Wire Drawing

USB (Type B)

Note: The wire can be used for charging and communication.

Structure Dimension

Unit： mm

Performance

Model	YidaScan WS80
Communication Mode	2.4G Wireless，Bluetooth
Sensor	CMOS, Global Shutter
Pixel	300,000，640*480
Light	White LED
Reading Precision	≥3mil/0.076mm（PCS90%,CODE 39）
Depth of Field	20mm~550mm
Decoding speed	65CM/S
Scanning Mode	Manual, Induction, Continuous
Prompt Mode	LED, Buzzer, Vibration
Perspective	H41°(Horizontal) * V31°(Vertical)
Reading Angle	Roll：±360°，Pitch:±60°，Skew：±55° CODE39,10mil/0.25mm,PCS90% (Test Conditions)
Print Constrast	≥15%
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， GS1 Composite etc.

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

Wireless Parameters

Wireless Communication Mode	Synchronization mode, storage mode
Method of Communication	2.4G, Wireless Bluetooth (HID, SPP, BLE)
Wireless Standard	2.4G, Bluetooth 4.2
Transmit Distance	≈60meters 2.4G; ≈30meters Bluetooth 4.2
Storage Capacity	350Kb (over 20,000 Product code)
Battery Capacity	4800mAh
Charging Time	About 8 hours(5V@1000mA)
Continuous Scan Time	≥60hours
Standby Time	≥4 Weeks
Operating System	Windows, Mac OS, IOS, Linux, Unix, Android

Mechanical/Electrical Parameters

Net Weight	228g(Scanner); 216g(Base)
Gross Weight	710g
Product Dimension	153.2mm(L) * 66.0mm(W) * 110.5mm(H)（Scanner）
	113.5mm(L) * 91.0mm(W)* 71.5mm(H)（Base）
Packed Dimension	230mm(L) * 130mm(W) * 132mm(H)
Wire Length	1.5 meters
Interface Type	USB (Type B)
Power Input	DC 5V 1A
Current	200mA（Average Work）

Working Environment

Working Temperature	0℃ to 50℃
Storage Temperature	-20℃ to 60℃
Working Humidity	5% to 95%（Non-Condensing）
Transportation Vibration Test	10H@125RPM

Spare Part List

USB Cable	It is used for connecting Scanner and Host to communicate and charge.
Base	It is used for charge and communication.
Operating Guide	It is used for common function settings.

Note: Select different cables according to different interface.

Depth of Field

Barcode Type	Barcode Density	Minimum	Maximum
Code 39	0.1mm(4mil)	50mm	80mm
Code 39	0.25mm(10mil)	30mm	210mm
Code 39	1mm(40mil)	115mm	550mm
UPC/EAN	0.33mm(13mil)	40mm	270mm
QR Code	20.0mil	30mm	175mm
Data Matrix	10mil	40mm	110mm
PDF 417	6.8mil	30mm	150mm

**Testing Conditions: Environment Temperature = 24℃, Ambient Light Illumination = 300LUX;

Testing Barcodes Will Be Provided By YidaScan**

Notice: There will be no announcement if changing parameters

Shenzhen YIDA Auto-ID Technology Co., Ltd. has the final right to interpret this parameter