RK1302

2D Hand-held Barcode Scanner User Guide

Shenzhen Rakinda Technologies Co.,Ltd

Version Record

Version updation and description

Version	Instructions	Publish Date
V1.0	Original Version	2016-11-10
V1.01	New add Data Matrix 和 PDF417 barcode reading	2017-04-25

Chapter 1 Product Information

Introduction

【RK1302 Physical map】

RK1302 scanner is a universal two-dimensional bar code scanner, using CMOS image recognition technology, intelligent image recognition system. You can easily read the paper, goods, screens and other media on the one-dimensional code, two-dimensional code.

Main Feature

✧   can easily read the market mainstream one-dimensional code, two-dimensional code

✧   can easily read the paper, plastic cards, LCD screen and other media bar code

✧   ergonomic design, comfortable grip

✧   support image sensor scan mode, with a dedicated bracket, to achieve automatic scanning
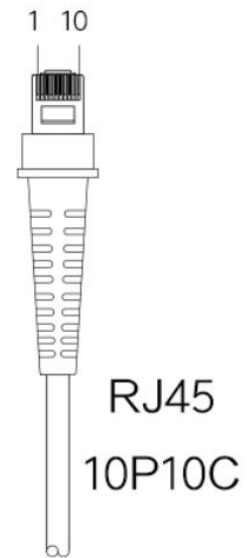
Applicable scope

Manufacturing, warehousing and logistics, health care, chain retail, mobile payment, express delivery, inventory management, food traceability, asset inventory and so on.

Data interface

RK-1302 uses RJ45 10P10C data interface, through the following table lists the RJ45 each PIN pin name and signal description.

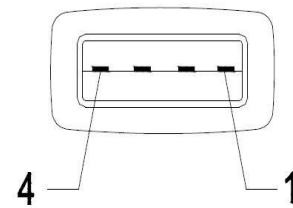| Pin No.	USB Function	RS232 Function
3	D+	TXD
5	D-	RXD
6	VCC	VCC
8	GND	GND

【RK-1302Data interface】

Wire interface

RK1302 barcode device must be connected to the terminal device to operate, the terminal device can be PC host, microcontroller, Andrews host and so on.
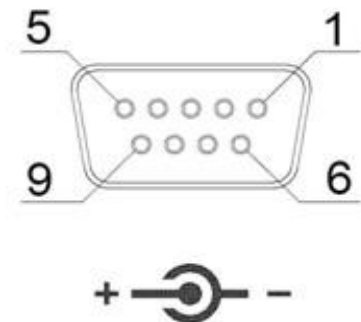
USB cable interface

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

【RK1302 USB Wire interface】

RS232 Wire interface

Pin No.	Function
2	TXD
3	RXD
5	GND
9	Vcc/+5V
Power Lead	Vcc/+5V

【RK1302 USB Wire interface】

Chapter 2 Performance parameters

Reading performance

Light source red	5600K LEDs (illumination illumination) LED 625 ± 10nm (aim aimer)
Image Sensor	640 x 480 CMOS
Processor	ARM32-bit
Resolution	≥4mil/0.1mm (PCS90%,CODE 39)
Read depth of field	10mm~650mm
Reading mode	induction reading /manual reading
Prompt mode	Buzzer/ LED
Read angle	*Test Conditions：CODE39,10mil/0.25mm,PCS90%* Rotate Roll: ± 360 °, tilt Pitch: ± 55 °, skew Skew: ± 50 °
Print contrast	≥25%
Ambientintensity	0-10000LUX light
Reading code system	1D：UPC-A , UPC-E , EAN-8 , EAN-13 , Code 128 , GS1-128 , Code 39 , Code 93 , Code 11 , Interleaved 2 of 5 , Matrix 2 of 5 , Codabar（NW-7）, MSI , etc. 2D: QR Code , PDF417 , Data Matrix , etc.

Mechanical / electrification performance

Body weight	<110g（No wire）
Dimension	150mm L * 70mm W * 95mm H
Interface	USB（USB-KBW/USB-COM）、RS232
Wire length	1.5m
Material	ABS
Color	Black
Operating Voltage	DC 5V
Current	150mA（Working），50mA（Standby）

Working environment

Working Temp	-20℃ to 50℃	
Storage Temp	-40℃ to 70℃	
Work humidity	5% to 95%（No condensation）	
Protection class	IP42	
Drop Test	1.5m，100 times	
High and low	30 minutes for high Temp., 30 minutes for low Temp.,	
	High	60℃
	Low	-20℃
Transport	10H@125RPM	

Accessories list

Data lines	USB data cable for connecting the host terminal
	RS232 data cable for connecting the host terminal with a power
Power adapter	Output : DC 5V, 1A ; Input : AC 100~240V, 50~60Hz

Read depth of field

Barcode type	Bar code density	Nearest	Fastest
Code 39	0.1mm(4mil)	50mm	80mm
Code 39	0.127mm(5.0mil)	30mm	90mm
Code 39	0.5mm(20mil)	70mm	280mm
Code 39	1.0mm(40mil)	150mm	650mm
EAN-13	0.33mm(13.0mil)	40mm	230mm
QR Code	20mil	10mm	200mm
Data Matrix	10mil	10mm	90mm
PDF 417	6.88mil	20mm	70mm

Test conditions: room temperature 25 ℃, ambient illumination 200LUX, PCS = 0.9