UHF Bluetooth Handheld Reader

H103 SE

characteristic

- Support 1D & 2D scanning
- Reliable structural design, long service life, durable and resistant to falling
- Built-in large capacity 3.7V-5000mAh battery
- The terminal and reader can realize data transmission via Bluetooth 4.2 or USB interface
- Provide dynamic link library (DLL) and demonstration software source code to support secondary development

  Application: clothing inventory, warehouse inventory, asset management and inspection, etc

Product Specifications

RFID Technical Parameters	
Frequency	902~928MHz (US) 865~868MHz (EU)
Protocol	ISO18000-6C (EPC GEN2)
Chip solution	IMPINJ E310
Output power	4dBm to 33dBm adjustable, 1.0dBm step
Read speed	>250 tags/second
Read distance	0~18m (Depends on the working environment and label)
Antenna	Gain 4dbi circular polarization antenna
Write distance	Writing distance 0-3m (affected by tag and environment)
Function	Read/write
Development Environment	
SDK	Demo software, API, examples, user manual
Firmware version	Support online upgrade
Development language	Android, C#

Data Communication	
Bluetooth	BLE 4.2
Barcode	Support 1D & 2D (H103 SE-2D)
Communication interface	Type C
Status indication	Battery indicator, working status indicator, Bluetooth connection indicator, buzzer
Physical parameters	
Material	Plastic, aluminum alloy
Battery capacity	5000mAh (typical value)
Working time	3-6 hours
Applicable device size	Device width 68-86mm
Size	155(H)×78(W)×133(L)mm
Weight	450g
Environmental parameters	
Environmental characteristics	Operating temperature: -20℃ to +50℃ Storage temperature: -40℃ to +65℃
Protection level	IP54
Drop	1.5m concrete floor

Function	1D/2D image scanning engine
Image sensor	CMOS
Resolution	300,000 pixels, 640*480
Resolution	≥3mil/0.076mm（PCS90%,CODE 39）
Reading angle	*Test Conditions： CODE39,10mil/0.25mm,PCS90%.* *Roll: ±360°, Pitch: ±60°, Skew: ±55°.*
Reading depth of field	40mm~500mm (different barcodes, different ranges)
Field of view	Horizontal 41°, vertical 31°
Decoding speed	35CM/S
Support code system	1D: UPC-A, UPC-E, EAN-8, EAN-13, ISBN, ISSN, Code 128, GS1-128, ISBT, Code 39, Code 32, Code 93, Code 11, Codabar (NW-7), Interleaved 2 of 5, Matrix 2 of 5, Industrial 2 of 5 (Straight 2 of 5), Standard 2 of 5 (IATA 2 of 5), NEC 2of 5, MSI, Telepen, Trioptic, BC412, Febraban, Coupon. 2D: QR Code, Micro QR Code, Data Matrix, PDF417, Micro PDF 417, MaxiCode, Aztec, HanXin Code, Pharma Code (One-Track), Codablock A, Codablock F, Dot Code, Grid Matrix, etc. Other composite codes: GS1 Databar (Omnidirectional, Limited, Expanded), GS1 Composite Code, TLC 39 Code. Chinese ID Card OCR, Passport OCR, etc. Postal Code: HongKong 2 of 5 (China Post), Korea Post, Australian Post, British Post, USPS Intelligent Mail, Japanese Post, Planet Code, Postnet Code, UPU 4-State, KIX Code.
Lighting, aiming	White LED, Red LED
Minimum print contrast	≥20%
Note: For barcodes with different symbol systems, since some barcodes are wider or denser, the actual reading ability is subject to the actual results.	

Typical depth of field

Barcode Type	Barcode Density	recent	Farthest
Code 39	0.1mm(4mil)	50mm	120mm
Code 39	0.25mm(10mil)	55mm	250mm
Code 39	1mm(40mil)	160mm	500mm
UPC/EAN	0.33mm(13mil)	60mm	270mm
QR Code	20.0mil	40mm	250mm
Data Matrix	10mil	50mm	110mm
PDF 417	6.8mil	50mm	150mm
Note: Depending on the size of the barcode, the actual reading distance may be farther.			

Details display

Function Description

Buttons, indicator lights and buzzer

Name	Function Description
Power button	Used for device power on/off operation, short press to power on, long press (>1S) to power off.
Read button	Used to trigger the device to perform a scan or query action, or to stop the device's current scan or query action.
Power indicator	Red, used to indicate the power on/off status, low battery (battery level <10%) and charging status. The indicator light is always on when the device is turned on, and it goes out when the device is turned off. The indicator light flashes slowly when the device is low battery, flashes quickly when the device is charging, and the indicator light is always on when the device is finished charging.
Read indicator	Green, used to indicate the status of scanning or querying. When the device performs scanning or querying, the indicator light is always on, and the device scanning or querying indicator light flashes.
Bluetooth indicator	Blue, used to indicate whether Bluetooth is connected. The indicator light flashes when Bluetooth is not connected, and the indicator light is always on when Bluetooth is connected.
Buzzer	Used to indicate the device power on/off status and standby wake-up status. The device power on buzzer will emit a 1S power on reminder tone, and the device power off buzzer will emit a 1S shutdown reminder tone. The device standby buzzer will emit a 200mS standby reminder tone, and the device wake-up buzzer will emit a 1S power on reminder tone.

Power on and off

Power on:

In the off state, press the power button, the power indicator light comes on, wait for about 5 seconds, the buzzer sounds a power-on prompt tone, and the power-on is successful.

Shutdown:

1. 1. In the power-on state, press the power button for 1 second, the device will enter the shutdown state, the buzzer will emit a shutdown prompt tone, and after waiting for about 1 second, all the indicator lights will go out, and the shutdown is successful.
2. 1. In the power-on state, press the power button for 1 second, the device will enter the shutdown state, the buzzer will emit a shutdown prompt tone, and after waiting for about 1 second, all the indicator lights will go out, and the shutdown is successful.

Standby and wake-up

Standby:

When the device is powered on, if there is no action for 2 minutes, the device enters the standby state, the buzzer sounds a standby prompt tone, and the power of the UHF module and the code scanning module are turned off to reduce the power

consumption of the device.

wake:

In standby mode, press the read button, the device enters the wake-up state, powers on the UHF module and the code scanning module, and the buzzer emits a power-on prompt tone, indicating that the wake-up is successful.

● Scan code mode/query mode

When the device is turned on, the APP software can be used to configure the device to scan code mode or query mode.

Scan mode:

1. Press the read button or the APP sends a scan command, and the device executes the code scanning action for 3 seconds.
2. If the code is scanned successfully, the device will immediately end the scanning action and the reading indicator will flash once.
3. If the code is not scanned successfully within 3S, end the current code scanning action, wait for about 500ms, and then perform the code scanning action again.
4. When the device is scanning a code, press the Read button to end the scan immediately.

Query mode:

1. Press the read button or send a query command through the APP. The device will execute the query action for 5 seconds and the read indicator light will turn on.
2. If the query is successful, the read indicator light flashes once.
3. When a query is triggered by a button, the device will automatically end the query after 5 seconds; when a query command triggers the query, the device will not automatically end the query.
4. When the device is querying, press the read button to end the query immediately.

● H103 accessories

Standard accessories: 20W fast charger x1, TYPE-C data cable x1.

● Optional devices

type	Barcode Density	Parameter Type	Specification
Scanning module	VM2250	Standard	Code39 (40mil) 25~70cm; QR Code (20mil) 4~25cm;
	VM3690	High	Code39 (40mil) 25~70cm; QR Code (20mil) 3~40cm;
RFID module	E710	Standard	33dBm, sensitivity -87;
	E510	Mid-range	33dBm, sensitivity -81;
	E310	Low-range	33dBm, sensitivity -74;

Related Products

Image				
Model	H100	H102	H103	H104
Reading distance	0~50cm (depends on label & application environment)	0~1 meter (depends on the tag & application environment)	0~18 meters (depending on the tag & application environment)	0~50cm (Depends on the label & application environment
1D&2D			Optional	Standard
Power	0-20dbm (adjustable)	0-26dbm (adjustable)	0-33dbm (adjustable)	0-20dbm (adjustable)
Dimension	76*37*39mm	53*138*40mm	155(H)*78(W)*133(L)mm	157*85.7*70mm