Instructions for UHF Card Reader

Introduction

The R16 is an integrated UHF reader with multi-protocol compatibility, fast read rate, multi-tag reading, and waterproof design. It can be widely used in various RFID systems.

Product specification

- Support ISO18000-6B and EPC Class1 GEN2 international standards;
- Integrated structure design, beautiful appearance, suitable for outdoor environment;
- Integrate high-performance linear polarized antennas, Recognize the long range distance stably;
- Supports tag echo signal detection, tag data filtering, clock stamping, and input and output functions;
- Recognition speed is fast, and the identification of single label can reach 140 times/second;
- Adopt frequency hopping working mode, strong anti-interference ability and high recognition sensitivity;
- Support sp) development in multiple languages, such as VC, VB, C, etc.
- Supports online upgrades, has a rich communication interface, and can be customized to the needs of users.

Application

Warehouse Management, Supply Chain Management, Vehicle Management, Line Management, Source Management, Asset Management, Product Anti-counterfeiting Management

model	R16		
Supported	ISO18000-6B, ISO18000-6C (EPC GEN2)		
working frequency	ISM 902 \sim 928MHz and ISM 865 \sim 868MHz , Other frequency standards (customized)		
Operation mode	Fixed Frequency or Software Programmable		
RF power	0~30dBm, Software Programmable		
Reading speed	Single card average reading is 64bits, less than 6ms,		
	Software Programmable		
Work mode	reading Active and reading passive, Software Programmable		
Communication	N:Wiegand26/34/98, RS485,RS232 ,USB		
Ports	E:Wiegand26/34/98, RS232,TCP ,USB		
Input interface	1 way trigger input		
Status indicators	buzzer		
Antenna	7dbi circular antenna		
Power supply	DC+9V		
Size	215mm×215mm×50mm		
Weight	0.8 Kg (Package:1.8kg)		
Operation Temp	-20℃~+70℃		

Technical parameters

Output format setting

$\mathbf{1}_{\nabla}$ Connecting devices and software



Connect the card reader with the computer, double-click to open the application program

, and click the read

button. The current format of the card reader will be displayed in the status box on the right side of the software.

🗟 Format output card number		
<u>S</u> ystem S <u>t</u> ype <u>A</u> bout		
USB reader intelligent set Prefix suffix Data	Input	Receive AA000A00000100000010181000ABB
Coutput format setting		Read data success 11:27:59 AM
 10 no.in D(four byte) 	🔲 10 no. in D reverse	The Output format : 8 no. in HEX (7 byte)
🔲 8 no. in HEX	🔲 8 no. in HEX reverse	The Output format : do not add semicolon The Output format : do not add , The Output format : do not add ?
🔲 8 no. in D (last 3bytes)	00+8 no. in D (last 3 bytes)	The Output format : add enter
🔲 8 no. in D (last 4 bytes)	🔲 5 no. in D	no add customize data
🔲 18 no. in D	🔲 13 no. in D	The current format is displayed in the status box
🔲 10 no. in HEX	🔲 GS1 no (sgtin-96)	
All EPC Card Numberscard number 12-	7-4 reverse epc card number 12-7-4 BYT	
2H4D 🗍 8 no. in D (ast 4 bytes) 🔲 add , in middle	
add; Olick the botto	dd ?	
Read Reader type	Close voice Factory default: Fatory default	
Set Active rea	ding Passtive reading Reading versio Version number	
RFID Format	output card number	2020.07.10 11:28:33 AM

If the connection fails, see the figure below

🐼 Format output card number		
<u>S</u> ystem S <u>t</u> ype <u>A</u> bout		
USB reader intelligent set Prefix <u>s</u> uff	ix Data Input	data error.please check Device
output format setting		Connection
10 no.in D(four byte)	🔲 10 no. in D reverse	Data error, no data recevice 05:34:32
🔲 8 no. in HEX	8 no. in HEX reverse	
📔 8 no. in D (last 3bytes)	UU+8 no. in D (last 3 bytes)	

$\mathbf{2}_{\mathbf{N}} \ \text{Reader status output format}$

2.1 Output format setting

💀 Format output card number		
<u>S</u> ystem S <u>t</u> ype <u>A</u> bout		
USB reader intelligent set Prefix suffix Data	Input	Receive AA0002008082BB
-output format setting		Set Up Success 11:30:40 AM
10 no.in D(four byte)	🔲 10 no. in D reverse	After esting the status hour
🔲 8 no. in HEX	🔲 8 no. in HEX reverse	shows that the setting was
🔲 8 no. in D (last 3bytes)	00+8 no. in D (last 3 bytes)	Succession
🔲 8 no. in D (last 4 bytes)	🔲 5 no. in D	
🔲 18 no. in D	13 no. in D 2 Choose the forma	at you want
🔲 10 no. in HEX	🔲 GS1 no (sgtin-96)	
All EPC Card Numberscard number 12-7	7-4 reverse epc card number 12-7-4 BYT	
🔲 2H4D 🔲 8 no. in D (la	ast 4 bytes) 🔲 add , in middle	
🗋 add ; 👘 ac	id ? 🔲 add "Enter"	
Format setting	Dotton lose voice Factory default Fatory default ding Passtive reading Reading versio Version number	
RFID Format of	output card number	2020.07.10 11:32:40 AM

2.2 Reader type settings

💀 Format output card number		X X
<u>S</u> ystem S <u>t</u> ype <u>A</u> bout		
USB reader intelligent set Prefix suffix Data	a Input	iveAA0002008082BB
Coutput format setting	Send	l buzzer shutdown instructions
10 no.in D(four byte)	I 10 no. in D reverse	iveAA0002008082BB Active reading success 11:35:32 AM ive AA0002008082BB
🔲 8 no. in HEX	8 no. in HEX reverse Set AM	Passtive reading success 11:35:32
🔲 8 no. in D (last 3bytes)	🔲 00+8 no. in D (last 3 bytes)	
🔲 8 no. in D (last 4 bytes)	□ 5 no. in D	hen the Settings are complete, the atus box displays the Settings
🔲 18 no. in D	🔲 13 no. in D	
🔲 10 no. in HEX	🔲 GS1 no (sgtin-96)	
All EPC Card Numberscard number 12	-7-4 reverse epc card number 12-7-4 BYT	
🔄 2H4D 🔲 8 no. in D ((last 4 bytes) 🔲 add , in middle	
🔲 add ; 🚺 Set	the card reader work type according to the r	equirements
Read Reader type Format setting Set Active reader	e Close voice Factory default; Fatory default ading Passtive reading Reading versio Version number	
RFID Format	output card number	2020.07.10 11:35:34 AM

2.3 Restore factory settings and version number query

😽 Format output card number		
<u>S</u> ystem S <u>t</u> ype <u>A</u> bout		
USB reader intelligent set Prefix suffix Data	Input	Receive AA0002008082BB
output format setting I 10 no.in D(four byte)	🔲 10 no. in D reverse	11:37:44 AM
🔲 8 no. in HEX	🔲 8 no. in HEX reverse	ReceiveAAUU18004D4D33325F52463931355F5 2575F56312E34612D3230303632335DBB read version number success 11:37:46
🔲 🔲 8 no. in D (last 3bytes)	🔲 00+8 no. in D (last 3 bytes)	AM
🔲 8 no. in D (last 4 bytes)	🔲 5 no. in D	the version number is: 4D4D33325F52463931355F52575F56312E34612D3 23030363233
🔲 18 no. in D	🔲 13 no. in D	The Settings are displayed in the
🔲 10 no. in HEX	🔲 GS1 no (sgtin-96)	status box
All EPC Card Numberscard number 12-	7-4 reverse epc card number 12-7-4 BYT	
🔄 2H4D 🔲 8 no. in D (l-	ast 4 bytes) 🔲 add , in middle	
add ;	dd? Click the botton	
Read Reader type	Close voice Factory default Fatory default	
Set	ding Passtive reading Reading versio Version number	
RFID Format	output card number	2020.07.10 11:37:48 AM

3、 Prefix and suffix data entry

3.1 Prefix and suffix settings

Fill in the prefix and suffix that need to be added here, up to four bytes. After completing, click the setting button behind, the status window on the right side will display the successful setting, as shown in the figure:

Format output card nu	mber	
<u>System</u> Stype Abo	out 0 Select "Prefix su	ffix data input" button
USB reader intelligent set	efix suffix Data Input	Receive AA0002008082BB
Prenx sumx setting		Set prefix Success 11:39:18 AM
Prefix: 30	31 32 33 F	Prefix seting
First byte S	iecond byte the third byte The fourth byte	Suffix setting Success 11:39:21 AM
Suffix: 31	32 33 34	The status how displays the
First byte S	econd byte the third byte The fourth byte	results
searce card interval :	10 range : 00~255, Unit:10ms	Setting
card filter number:	10 range 00~255 ,00 output allthe time	Setting
	wiegand open wiegand close USB open USB close	
Setting baud rate :	9600 baud rate	Settting
Serial port end symbol:	02 00 none, 01 means 0D, 02 means 0D0A	Setting
Set RF power	02 00~11, means 12.5db~30db	Setting
Wiegand output format :	00 00WG26 01WG34 02WG66 03WG98	Setting
Wiegand value position :	09 12 bytes card number + place of value	Setting
QA wiegand Low level pulse width (0x01~0xFF) UNIT 10US	n Setting 0A Uiegand Idle level(0x01~0xFF) Un	Setting it 100US
RFID	Format output card number	2020.07.10 11:39:23 AM

3.2 915M machine information

Card search interval value refers to the time interval between two card readings. The larger the value, the longer the interval time;

Card filtering times refer to the number of repeated card readings. The larger the value, the longer the interval between repeated readings;

Output interface setting, open or close the corresponding interface according to requirements, click the setting button to complete the setting;

The default baud rate is 9600, select the required value and click the right setting button to complete the setting;

Add a serial port input terminator, enter the character to be set in the input window, and click the set button to complete the setting;

RF power setting, the greater the value, the higher the power, the farther the sensing distance, enter the required value, click the setting button to complete the setting;

Wiegand output format, enter the corresponding value, representing the corresponding format, click the setting button to complete the setting;

Wiegand value location, 12-byte card number, fill in the required location, click the set button to complete the setting;

Wiegand low-level pulse width range and Wiegand idle-level pulse width range, fill in the value to be set (0x01~0xFF), click the setting button to complete the setting, as shown below:

💀 Format output card number	
<u>S</u> ystem S <u>t</u> ype <u>A</u> bout	
USB reader intelligent set Prefix suffix Data Input	Receive AA0002008082BB
Prefix suffix setting According to the requirements to set the Prefix: 30 corresponding parameters or options, Prefix seting	search card interval success 11:42:24
First by click the right button to confirm The fourth byte	ReceiveAA0002008082BB
Suffix: 31 32 33 34 First bute Second bute the third bute The fourth bute Suffix setting	Set card filter number Success 11:42:25 AM
-915M device information	Receive AA0002008082BB
search card interval: 10 range : 00~255, Unit:10ms Setting	butput interface setting Success 11:42:25 AM
card filter number: 10 range 00~255 ,00 output allthe time Setting	Receive AA0002008082BB
output interface setting:	betting baud rate Success 11:42:20 AM
💽 wiegand open 🔲 wiegand close	Serial port end symbol Success
🔳 USB open 🔲 USB close	l1:42:26 AM
Setting baud rate : 9600 Settting	ReceiveAA0002008082BB Set RF power Success 11:42:27 AM
Serial port end symbol: 02 00 none, 01 means 0D, 02 means 0D0A Setting	Receive AA0002008082BB
Set RF power 02 00~11, means 12.5db~30db Setting	Viegand output format success 11:42:27 AM
Wiegand output format: 00 00WG26 01WG34 02WG66 03WG98 Setting	Receive AA0002008082BB
Wiegand value position: 09 12 bytes card number , place of value Setting	11:42:28 AM
0A 0A Setting wiegand Low level pulse width (0x01~0xFF) UNIT 10US Setting Wiegand Idle level(0x01~0xFF) Unit 100US	The status box displays the results
RFID Format output card number	2020.07.10 11:42:28 AM