2.4 GHz 02 Active directional long Range

Card reader user manual

Product advantage

Adopt high-performance industrial-grade micro controller.

Tag identification speed: 2000 tag/S (time-sharing order transmit)

Tag reading capacity:1000 tag/S

Tag buffer capacity:200 tag (can prevent reread)

Adopt 18 dbi high gain directional antenna

Maximum theory card read distance 25 meters

Directional Capacity 15:1

with signal attenuator reading distance Adjustable 0- 25 meters
read-write space:2 kbit

Low Battery alarm

Card reader technology parameters

Processor adopt high-performance industrial-grade micro controller

Tag reading capacity:1000 tags/S

Buffer capacity: 200 tags (can prevent reread)

Reading distance:Maximum reading distance 25 meters

Attenuation distance can be adjusted from 0- 50 meters (distance error ±15% OEM)

Distance debugging:rotating regulator clockwise for far, counterclockwise for near

Voltage:12 VDC (9-12 VDC)

Current: ⩽100 ma

Communication interface: Wiegand 26 bit （by default）34bit

RS232 RS485 (factory Settings 115200 8 N 1)

Working temperature: 35 ℃ ~ + 70 ℃

Working humidity:10% ~ 10% RH

Weight :2 kg

Dimensions: 308 x308x80mm

Antenna technology parameters

frequency range: 2.400 2.480 GHz

Antenna:14 dbi

power Angle: vertical: 55 ° / Horizontal:45 °

polarization mode:Vertical/horizontal

standing-wave ratio(SWR) ⩽1.5

input impedance:50 Ω

lightning protection :DC grounding

Wind resistance capacity: 80m/s

installation way: LU code derrick

Supporting rod :Φ 30-50 Φ

Case: ABS engineering materials waterproof shell

Wire definition

S/N	color	Wire definition
1	red	+12VDC (9-12VDC power)
2	black	GND (power)
3	green	D0 (Wiegand Data0)
4	white	D1 (Wiegand Data1)
5	Blue	LED
6	Yellow	SPK
7	Grey	Ground sensor
8	Brown	RS232/RS485+
9	orange	RS485-

Remarks: Connect the Grey and Black wire to Trasnfer Data

Communication protocol

(family-school communication format)

RS232 and RS485 (only sending mode)

Communication setting:baud rate: 115200, 8bit data bits,1 bit stop bit, no parity

start code (1byte)	address code (1 byte)	card NO (5 byte)	Sum check (1 byte)	Epilogco (2 byte)
0x02	2 byte ASCII	10 byte ASCII	2 byte ASCII	0x0D 0x0A CR LF

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

<02><30><31><30><30><31><32><33><34><41><42><43><44><42><46><0D><0A>

1 start code 0x02 fixed characters

2-3 address code 0x01 value range 1-255 divided into 2 bytes send by ASCII

4-13 card No 001234ABCD value range 0x00 - 0XFFFFFFFFFF

4-13 card number 001234 abcd value range 0 x00-0 XFFFFFFFFF

divided into10 bytes send by ASCII

14-15 sum check OXBF value range 0 x00-0 0 XFF address and the card number sum check

Divided into 2 bytes sent by ASCII

16-17 end character code 0 x0d 0 x0a fixed characters < CR > < LF >