

SPD400 SERIES LONG RANGE READER

SPK100,101,103CARD, SPW102, SPK600TAG, LED TAG

DESCRIPTION

SP-D400 series reader works at 2.45GHz microwave frequency band, communicating with tags wirelessly, exchanging, collecting and update data for tags automatically, and communicating with computers through serial port or wirelessly.

PERFORMANCE

- Identification range is adjustable from 2 to 80 meters
- Advanced anti-collision techniques, simultaneously identifying up to 200 tags
- Support identification of fast moving objects with speed up to 200 kilometers
- Provide omni-directional or oriented antennas
- Work at globally free 2.45GHz ISM band
- Communicate with computer through RS232/483/weigand 26 or wirelessly
- Encrypted and certified to assure data safety, preventive of eavesdropping and intentional decoding
- Applied channel isolation technology, no interferences between equipments
- Customized microwave work modes, adjustable transmission power
- Ultra low power consumption, max transmission power is less than 1mW(0dBm)
- Applied 0.18uM technology to reduce cost
- Meet harsh industrial environment requirements
- Anti-jamming capability, tolerance of interfering sources at the scene
- Applied design techniques of anti-interferences and thunders
- Easy installation with built in antenna

SPD400 Data Connection

Color	Description
Red	DC 9V-12V (+)
Black	DC 9V-12V (-)
Orange	Weigand D0
Brown	Weigand D1
Blue	RS232-RX
Write	RS232-TX
Yellow	RS485-A
Green	RS485-B
Purple	Buzzer (+)
Gray	Buzzer (-)

SPD400 Bit Setup Description

No.	Description
Bit (1-3)	0-7 Reader Address
Bit (4)	0:Buzzer and Led off 1:Buzzer and Led on
Bit(5-6)	0:RS232 1:RS485 2:Weigand 26 3:Weigand 34
Bit(7-8)	0:2200 1:4800 2:9600 3:38400

SPD400 READER

Parameter	Specifications
Mechanical characteristics	
size	260mm x 260mm x 70mm
weight	4.4kg
Shell material	ABS, cast aluminu
Color	grey
Installation position	Pole or beam
Installation manner	Hanging on side or to the ceiling
Microwave link characteristics	
modulation	uplink/GFSK downlink/GFSK
Frequency	2.4 - 2.4835 GHz
Transmission power	0dBm(software adjustable)
Antenna polarization	circular polarization
Microwave communication range	2-80m adjusted by attenuator
Microwave communication error check	Cyclic redundancy check(CRC16)
Communication encryption	Temporarily confidential
Bit error ratio/B.E.R	10 ⁻⁷
Electric characteristics	
power	RS232/485:+6 to +12V DC(MAX 500mA)
Communication interface	RS232/485/weigand baud rate:4800-11520
Environment characteristics	
temperature	-40°C to +80°C
Storage temperature	-60°C to +80°C
Anti-electromagnetism interferences	10V/m 0.1-1000MHz AM waves
reliability	MTBF 70000 hours
Work life	15 years

SPD400 Hardware Interface Description

DC9V IN	power supply, DC9V/500mA or DC12V/500mA adaptors
WIEGAND	weigand interface, can choose weigand 26 or weigand 34
RS232	RS232 interface
RS485	RS485 interface
INPUT	input interface (switch signal or spare)
BUZZER/LED	interface to external buzzer with power DC9V or LED (in such case, one 1K/0.25W resistance with serial connection is needed)

SPK100,103 CARD, SPK101,102 TAG

Parameter	Specifications
Modulation	GFSK
Data rate	1000kbit/s
Frequency	2.4 - 2.4835 GHz
RF power output	-20dBm - -5dBm
Sensitivity	-90dBm
Bit Error Rate	10 ⁻⁶
Temperature	-30°C to 70°C (Operating) -40°C to 80°C (Storag)
Humidity	100% Non-condensing
EMI	10V/M 0.1~1000MHz AM electromagnetic wave
Battery Life	6-8 years(10 years optional)
Shock	10~2000Hz 15g 3 axial
Free Drop	1M concrete floor, twice per sid