



RS-AR02

2.45 GHz Omni-Directional Active RFID Reader

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RS-AR02 2.45 GHz omni-directional active RFID reader has the characteristics of wide coverage, long card reading distance, fast card reading speed, high reading rate, high reliability, and strong expandability. The device has built-in reading distance adjustment control and RSSI tag signal intensity detection circuit. The reading distance can be controlled by software within the range of 0 to 180 meters. The product is suitable for applications with obstruction and reading distance greater than 10 meters,

such as open area access control, industrial signal identification, personnel positioning, attendance management, goods management and monitoring, manufacturing management, transportation management and other application systems.

Functions

- Working in the ISM (2.4-2.48GHz) frequency band, proprietary protocol, expandable and compatible with wireless sensor tags.
- The built-in software can adjust the digital attenuator, and the reading distance can be controlled through the software.
- Internally integrated RSSI tag field strength detection circuit, real-time monitoring of the distance between the tag and the reader/writer.
- The reader/writer is separated from the antenna and can be flexibly configured with various types of antennas according to the application system.
- Supports RS-232 interface and 10M/100M adaptive Ethernet communication interface.
- Provide expandable 2-channel optoelectronic isolation input control and 2-channel level output control.
- Provide API development packages and C++, C # application routines for easy and fast integration and application.

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Specification

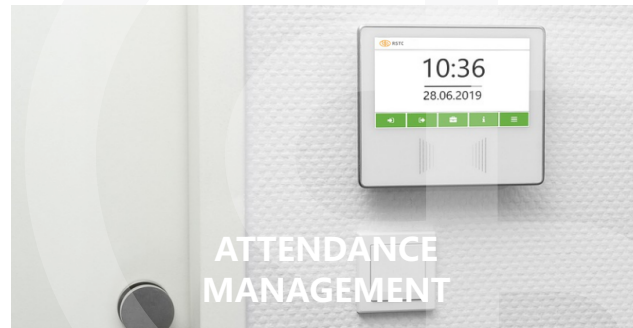
Electrical Parameters	
Operating Frequency	ISM band 2.4-2.48GHz
Power Output	Maximum output + 15dBm, built-in 32db power attenuator, stepped -2db, software controllable
Receive Sensitivity	-93dBm
Label Signal Strength Indication (RSSI)	-50dBm- -80 dBm, accuracy \pm 1dB (optional)
Antenna	External antenna, standard configuration 6dbi omnidirectional whip antenna, can be customized according to the actual application
Communication Interface	
Communication Interface	RS-232 interface, 10 / 100M adaptive Ethernet
Communication Expansion Interface	RS-485 interface, Wiegand 26/34 interface (optional)
GPIO Interface	2 optical isolation inputs (5V, <20mA); 2 relay control outputs (30V, <1000mA)
Firmware Upgrade	Supports online serial port upgrade through dedicated upgrade software
Anti-collision Handling	Provides API development kit and C ++, C # application routines
Tag Operation	
Supporting Tag Protocol	Enterprise private protocol, can be customized development according to customer agreement
Supporting Tag Working Mode	Support active and passive active tags
Tag Reading Distance	0 ~ 180 meters (outdoor line of sight distance test, actual reading distance depends on antenna type, environment, tag type)
Number of Identification Tags	300 tags / second (Ethernet connection test)
Application Software Interface	1000 tags

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Mechanical and Electrical Properties

Size	170mm × 150mm × 42.5mm (without antenna)
Weight	550g
Power Supply	220V AC input, DC 5V / 2A output power converter
Power Loading	200mw standby, 400mW working
Working Temperature	-40°C~+60°C
Storage Temperature	-60°C~+80°C
Operating Humidity	5% ~ 95% (non-condensing)
Water/Dust-proof Rating	IP54
Vibration	10~500Hz, 100mm/15g, three axis
Installation Method	Desktop or wall mounted

Application



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