

## ACTIVE RFID READER F2412



The 2.4G active RFID reader/writer F2412 is an active RFID reader/writer device that operates in the 2.45GHz frequency band and comes standard with a 12dBi directional antenna. This product has the characteristics of accurate reading range, high recognition rate, powerful functions, high reliability, and strong scalability. Its reading distance can reach 5-350m. F2412 is a new generation high-performance 2.45G long-distance reader/writer, which has accumulated 10 years of RFID research and development experience. Equipped with a new generation 2.4G high-frequency transceiver chip developed by Nordic, the main control chip uses a new generation high-performance ARM-COTEXM3 processor, which has functions such as multi device communication, watchdog, heartbeat packet, and real-time monitoring of device status information. It also integrates communication interfaces such as Wiegand 26/34, RS232, and 100Mbps Ethernet port.

The F2412 reader/writer adopts a waterproof design, with a waterproof rating of up to IP65, suitable for outdoor use. The device is equipped with various communication interfaces for quick and easy connection with the host.

The product adopts software fault tolerance and hardware anti-interference design, which can work continuously and stably for a long time in harsh working environments.

### Product advantages

- The reader supports communication interfaces such as Wiegand 26/34, RS232, and 100Mbps Ethernet ports;
- The reader/writer supports automatic label reading and command triggering to meet different user needs;
- Adopting multi reader/writer technology, supporting the working mode of multi reader/writer intensive environment;
- Integrated directional antenna with good directionality;
- The reading distance can be software debugged to achieve perimeter applications;
- Provide a powerful API user interface that enables rapid integration and integration with users' existing information systems;
- The communication protocol is independently developed and can be customized and extended for specific user needs;
- Provide supporting API development packages to enable customers to quickly complete development.

## Product Technical Parameters

Parameters	
Operating Frequency	2.4 ~ 2.483G
Signal attenuation	Software adjustable: 0-63dbm (the larger the value, the greater the attenuation)
receiver sensitivity	-95dBm
Communication speed	1Mbit/s
Antenna gain	12dBi
Identify angles	directional (Hor:33°/ Ver:36°)
Polarization mode	Vertical polarization
communication interface	
communication interface	RS232, 10/100M adaptive Ethernet interface Wiegand 26/34 (optional), RS-485 (customizable)
I/O interface	2-channel input interface, 4-channel output interface (optional)
Scalable wireless module	802.11 module, full network 4G module
UPGRADE	Support serial port upgrade
Serial communication parameters	Adjustable baud rate (default 230400bps)
Application software platform	Provide software development kit (SDK) and API
Label operation	
Support tag operation	proprietary protocol
Support tag working mode	Active tag
Read distance	5 ~ 350m (Depends on the output power of the antenna and tag)
Read speed	500 tags per second (ID number only)
Mechanical and electrical performance	
Size	228*228*68mm
Weight	1.78kg
Overall Power Consumption	2W
Power	DC12V
Installation method	Installation of clamps
Working Temperature	-25°C ~ 65°C
storage temperature	-30°C ~ 70°C
Working humidity	5% ~ 95% ~ (No condensation)
IP lever	IP65