

INTEGRATED RFID READER F5018



The ultra-high frequency integrated series reading device is a high-end integrated UHF RFID reader/writer product. Its design is equipped with the ultra-high frequency M2210/M2100 reading/writing module and RFID antenna developed by our company. The integrated device F5018-H has a reading distance of 0-23 meters, F5018-L has a reading distance of 0-6 meters, and F5018-S has a reading distance of 0-13 meters. The industry's multi tag algorithm can recognize at high speed. In response to customer needs, the label can be encrypted, and other readers will read it with garbled characters, increasing confidentiality. Among similar products, the performance is stable and the reading distance is far. The device integrates communication interfaces such as RS232 and 100Mbps Ethernet.

The ultra-high frequency integrated series adopts ASA engineering plastic shell design, and the equipment has strong waterproof, dustproof and anti-interference capabilities, meeting the design requirements of outdoor all-weather industrial grade products. Supports EPC global UHF Class 1 Gen 2/ISO 18000-6C protocol, featuring multiple interfaces, long recognition distance, fast speed, high accuracy, strong anti-interference ability, excellent protection performance, and easy installation and use.

There are currently three main products in this series

MODEL NO	MODULE
F5018-H	M2210
F5018-L	M2100
F5018-S	M7131

Product advantages

The H series adopts M2210 module, with a receiving sensitivity of up to -82dBm; The L series adopts M2100 module, with a receiving sensitivity of up to -62dBm; The S series adopts M7131 module, with a receiving sensitivity of up to -82dBm and a maximum power of 33dBm; High performance, suitable for harsh application environments;

High stability, 60 * 24-hour high-temperature copying machine, capable of uninterrupted and stable operation;

The multi tag dense reading performance is excellent. The H series can achieve a tag recognition rate of over 800 tags/s, the L series can achieve a tag recognition rate of over 200 tags/s, and the S series can achieve a tag recognition rate of over 800 tags/s;

Provide a comprehensive software development kit (SDK) and interface that is easy to integrate with RFID software;

By using integrated RF chips, the module performance is more stable, and it is also suitable for harsh high demand application environments;

Using carrier cancellation technology, the accuracy and range of tag reading are good;

Enhanced noise suppression function for reliable data capture;

Support high-precision return signal strength (RSSI);

Good anti-interference performance;

Adopting ABS engineering plastic box shell design, sturdy and durable.

Product Interface Description

Standard serial port interface	
Standard Ethernet interface	
DC 12V interface	

Product Technical Parameters

NO	NAME	Parameter
1	working voltage	DC 12V
2	Peak operating current	S series: 2.5A
3	Working temperature	-20 ~ 65°C
4	Working humidity	5%-95% RH No condensation
5	storage temperature	-30 ~ +70°C
6	Tag protocol	EPC global UHF Class 1 Gen 2 / ISO 18000-6C
7	Work frequency	840 ~ 960 MHz
8	output power	Software adjustable: S series: Step interval of 1.0dB, 0dBm ~+33dBm
9	Output power flatness	±0.2dBm
10	receiver sensitivity	S series : -82dbm
11	RF port standing wave	≤1.5
12	Read distance	F5018-S: 0 ~ 13 meter The reading distance is related to the tag type, transmission power, and application environment
13	Multi tag reading	H series : ≥800 tags/s L series: ≥200 tags/s M series:≥800tags/s
14	Interface communication speed	115200bps
15	Working temperature detection	Support
16	Dense Reader Mode DRM	Support
17	Antenna connection protection	Support
18	Return signal acceptance strength RSSI	H series: Supports L series: Supports
19	Antenna type	Paired with 8dBi circularly polarized antenna
20	Communication interface	Standard: RS-232, RJ45 (100Mbps Ethernet interface) Customizable: RS-485, 4G, WIFI, Bluetooth
21	buzzer	Yes
22	appearance design	ASA Engineering Plastic Box Shell Design
23	Dimension	190*190*54mm
24	IP LEVER	IP65
25	Weight	0.74KG