

INTEGRATED RFID READER F5019



The ultra-high frequency integrated series reading device is a high-end integrated UHF RFID reader/writer product. Its design is equipped with our company's developed ultra-high frequency M2210/M2100/M7131 reading/writing module and RFID antenna. The integrated device F5019 can read up to 0-23 meters, and the industry's multi tag algorithm can quickly identify tags. In response to customer needs, tags can be encrypted, and other readers will read garbled characters to enhance confidentiality. Among similar products, the performance is stable and the reading distance is far. The device standard integrates RS232 and 100Mbps Ethernet communication interfaces.

The ultra-high frequency integrated series adopts ABS engineering plastic shell design, with strong waterproof, dustproof, anti-interference ability and circuit lightning protection design, 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
F5019-H	M2210
F5019-L	M2100
F5019-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, also 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;

Adopting integrated RF chips, the module has stable performance and can also be applied in harsh and 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 and circuit lightning protection design;

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	H series : 2.0A L series: 700mA S series: 2.5A
3	Work 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	Working frequency	840 ~ 960 MHz
8	Support work area	China 1, China 2 US, Canada and other regions following U.S. FCC Europe and other regions following ETSI EN 302 208 with & without LBT regulations Japan, Korea, Malaysia, Taiwan
9	output power	Software adjustable: H series: Step interval of 1.0dB,+5dBm →+30dBm L series: Step interval of 1.0dB,+5dBm →+25dBm S series: Step interval of 1.0dB, 0dBm →+33dBm
10	Output power flatness	±0.2dBm
11	receiver sensitivity	H series: -82dBm L series: -62dBm S series: -82dbm
12	RF port standing wave	≤1.5
13	Read distance	F5019-H:0 ~ 23 meter F5019-L:0 ~ 8 meter F5019-S:0 ~ 23 meter The reading distance is related to the tag type, transmission power, and application environment
14	Multi tag reading	H series: ≥800tags/s L series: ≥200tags/s S series: ≥800tags/s
15	Interface communication speed	115200bps
16	Working temperature detection	support
17	Dense Reader Mode DRM	support
18	Antenna connection protection	support
19	Return signal acceptance strength RSSI	H series: Supports L series: Supports S series: Supports
20	Antenna type	Paired with 9dBi circularly polarized antenna
21	Communication interface	Standard: RS-232, RJ45 (100Mbps Ethernet interface) Customizable: RS-485, 4G, WIFI, Bluetooth
22	buzzer	YES
23	appearance design	Design of ABS Engineering Plastic Box Shell
24	SIZE	270*270*75mm
25	IP LEVER	IP65
26	WEIGHT	2.8KG