

INTEGRATED RFID READER F5009



F5009-H Mid-range UHF RFID Integrated Reader is a high-performance reader/writer designed for high challenging RFID application environment. It employs our high efficient M2210 RF module, 9dbi circular polarization antenna and integrates with interfaces of RS232, RS485 and Ethernet, which can realize a reading distance of 10m. It owns a superior multi-tag reading rate and can achieve a tag identification rate of 400tags/s or above.

F5009-H adopts ABS industrial plastic case. It is waterproof, dustproof and has excellent anti-interference and lightning protection capability.

Product advantages

- Employed IMPINJ R2000 RF Chips, up to -82dbm receiving sensitivity and the highest performance in this field makes this module more suitable for harsh application environment.
- High stability and reliability, 60*24 hours high temperature of workstation, can work stably and continuous.
- Remarkable performance, can achieve a reading distance over 11m for single tag reading.
- Remarkable performance in intensive tags reading, can attain a tags identification rate of 400tags/s.
- Provide the most comprehensive functions SDK and ports, easy to integrate RFID software.
- Adopted integrating RF chip, module performance is more stable, and more suitable for harsh application environment.
- The use of carrier wave cancellation technology makes the tags reading more accurate and reading scope wider.
- Enhanced noise suppression function for reliable data capturing.
- High precision return signal strength (RSSI).
- ABS industrial plastic case, rugged and durable.
- Waterproof and dustproof, production grade is IP64.

Product Technical Parameters

NO.	Name	Parameters
1	Working Voltage	DC +12V
2	Working Temperature	-25 ~ +65°C
3	Working Humidity	≤95% (+25°C)
4	Storage Temperature	-40 ~ +80°C
5	Tag Protocol	EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C
6	Working Frequency	840 ~ 960 MHz
7	Supporting Working Areas	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
8	Output Power	Software adjustable, step interval 1.0dB, maximum +30dBm
9	Output Power Flatness	±0.2dBm
10	Receiving Sensitivity	-82dBm
11	RF Port Standing Wave	≤1.5
12	Reading Distance	≥14m (relate to tags type, transmitted power and application environment)
13	Multi-tags Reading	≥400tags/s
14	Interface Communication Rate	115200bps
15	Working Temperature Detection	Support
16	Intensive Read/Write Mode DRM	Support
17	Antenna Connection Protection	Support
18	RSSI	Support
19	Antenna Type	9dbi circular polarization antenna
20	Communication Port	RS485、RS232 (DB-9) RJ45 (100M Ethernet port)
21	Buzzer	Yes
22	Enclosure	ABS industrial plastic case
23	Dimension	28*28*7.5CM
24	IP Grade	IP64

Interface definition

Pin NO.	Name	Description
1	485-A	RS485 A
2	485-B	RS485 B
3	GND	Ground
4	GND	Ground
5	E-6	Ethernet RJ45 PIN6
6	E-3	Ethernet RJ45 PIN3
7	+12V	DC +12 Power supply
8	GND	Ground
9	E-1	Ethernet RJ45 PIN1
10	E-2	Ethernet RJ45 PIN2
11	232-RX	RS232 RX
12	232-TX	RX232 TX