

12dBi UHF Integrated RFID Reader

SBI-U2512

SBI-U2512 is a high-performance UHF integrated RFID reader designed for versatile global use, operating in the 860–868 MHz / 902–928 MHz frequency ranges (adjustable based on regional regulations). It features a built-in antenna and supports ISO 18000-6C / EPC Class 1 Gen2 tags. Powered by the advanced Impinj E710 chip, the reader delivers superior performance with fast, accurate tag reading. Its compact and integrated form factor ensures easy and flexible installation, making it ideal for a wide range of RFID applications.

Features and Benefits:

- Flexible label data filtering for precise tag recognition
- Optimized for dense card reading with minimal interference
- Fast multi-tag reading with anti-collision algorithm
- RSSI support for real-time signal strength monitoring
- Built-in 12 dBi antenna with >15m stable read range
- Optional external antenna interface for dual-use setup
- Interfaces: Ethernet, RS232, RS485, Wiegand
- 2 opto-isolated inputs and 2 relay outputs
- Reliable all-weather operation with robust circuit design
- Demo software included; supports secondary development
- Adjustable output power up to 33 dBm

Applications:

- Vehicle management and verification
- Anti-counterfeit detection
- Production and process automation
- Logistics and warehouse tracking
- Ticketing and personnel identification
- Asset and power inspection management



SPECIFICATIONS

Physical Parameter

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Dimensions (in mm)	445mm X 445mm X 88mm
Colour	White
Weight	3 Kg approx.
Packaging Material	ABS Plastic
Protection Level	IP65
UHF Technical Parameters	
Protocol	EPC Class 1 Gen2 (ISO 18000-6C)
Features	Supports dense reading and writing, multi-tag recognition, label data filtering, RSSI support, and signal strength detection.
Operating Frequency	China (GB Standard): <ul style="list-style-type: none"> • 920–925 MHz (Primary) • 840–845 MHz (Optional) Europe (ETSI Standard): <ul style="list-style-type: none"> • 865–868 MHz (Optional) India (TEC-Compliant Frequency Band): <ul style="list-style-type: none"> • 865–867 MHz North America (FCC Standard): <ul style="list-style-type: none"> • 902–928 MHz (Optional)
Power Supply	9 to 32 V DC
Transmitting Power	33dBm±1dB Software adjustable
Operating mode	Supports FHSS (Frequency Hopping Spread Spectrum) with software-configurable frequency settings.
Output power adjustment	1 dB step walking
Modulation	DSB-ASK
Read Range	Up to 20 m
Antenna	Internal (12 dBi)
Antenna Specification	Embedded and rounded
Continuous Tag Writing Distance (EPC Code)	≥5 mm (dependent on tag chip performance); writing power exceeds 90% in a non-interference environment.
Communication Interfaces	Supports multiple user interfaces, including TCP/IP, RS232, RS485 , and optional Wiegand 26/34 interface.
Polarization	Circular
Indicators	Buzzer as an audio indicator
Mounting Accessories	Included
Relay	2 relays
Environmental parameters	
Operating Temperature	-20°C to + 70°C
Operating Voltage	DC, 9-32 V
Storage Temperature	-30°C to +85°C
Working Humidity	10% to 95% RH No condensation

Soochak Bharat, with its technical expertise in RFID technology, focuses on designing, developing, innovating, and deploying RFID hardware solutions.

*Read range is dependent on tag size and design.

*Soochak Bharat reserves the right to make changes in the above specifications without notice.

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