

8dBi UHF Integrated RFID Reader

SBI-U2508

SBI-U2508 is a high-performance UHF RFID reader and writer with an integrated 8 dBi antenna. Designed with fully independent intellectual property and advanced signal processing algorithms, it delivers fast, accurate, and long-distance tag reading and writing. Despite its compact design, the device ensures high-speed operation, excellent recognition accuracy, and strong protection performance for reliable outdoor or industrial use. It supports mainstream UHF RFID protocols, including **EPC C1G2** and **ISO18000-6C**, and operates within **865–867 MHz** or **902–928 MHz**, adjustable based on regional requirements.

Features and Benefits:

- Flexible label data filtering for accurate tag identification
- Dense tag reading with anti-interference optimization
- Fast multi-tag reading with anti-collision algorithm
- RSSI support for signal strength monitoring
- Built-in circular polarized antenna (6/8/9/12 dBi options)
- Optional external antenna interface
- Interfaces: Ethernet, RS232, RS485, Wiegand 26/34
- 2 opto-isolated inputs and 2 relay outputs
- Includes demo software and SDK
- Output power adjustable up to 33 dBm



Applications:

- Parking management and vehicle tracking
- Logistics and warehouse automation
- Access control and personnel identification
- Tollbooth and highway vehicle information systems
- Smart production line and process control
- Inventory and asset management
- Anti-counterfeiting and security systems
- Hospital, school, and factory entry system

SPECIFICATIONS	
Physical Parameter	
Dimensions (in mm)	225mm X 225mm X 55mm
Colour	White
Weight	0.85 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	<p>China (GB Standard):</p> <ul style="list-style-type: none"> • 920–925 MHz (Primary) • 840–845 MHz (Optional) <p>Europe (ETSI Standard):</p> <ul style="list-style-type: none"> • 865–868 MHz (Optional) <p>India (TEC-Compliant Frequency Band):</p> <ul style="list-style-type: none"> • 865–867 MHz <p>North America (FCC Standard):</p> <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 Broadcasting FM (FHSS) or fixed frequency, configurable via software settings.
Output power adjustment	1 dB step walking
Modulation	DSB-ASK
Read Range	Up to 10 m
Antenna	Internal (8 dBi)
Antenna Specification	Embedded and rounded
Continuous Tag Writing Distance (EPC Code)	≥3 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	-40°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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