

## Key Features

- Inbuilt 9dBi Circular Polarized Antenna
- High RF sensitivity for longer read-write ranges
- Multiple communication interfaces
- Supports reading-writing of tags
- High tag read rate
- Supports auto-pilot mode
- Multi-regional support
- Compact package
- IP65 rating
- Dual antenna



# Product Datasheet

## Two Port Integrated Reader

Model No. : SN-IR 201

Scratchnest

ScratchNest SN-IR 201 is a compact and fully integrated two port Long Range RAIN RFID Reader which works in the ultra-high frequency range. It boasts various features including a built-in 9 dBi circular polarized antenna, an external antenna port of 50 Ohm and USB, RS-232, RS-485, and LAN interfaces that make it easy to install and use. Additionally, the range of RF power is 0 to 31.5 dBm which is adjustable via software. This reader is completely water resistant and specially designed to bear all weather conditions.





## Physical Characteristics

- Dimensions**300 x 300 x 50 mm
- Material**Polycarbonate and aluminium alloy
- Communication Interfaces**USB, RS-232, RS-485, and LAN
- Input Voltage**9-24 V DC supply
- Current Rating**2 A
- Cooling Mode**Air cooling
- Ethernet Interface**10/100 base T-Ethernet (RJ45)
- GPIO**4 output and 4 input, optically isolated

## UHF RFID Features

- Frequency**865-868 MHz and 902-928 MHz
- Protocol**EPC Class1 Gen2 (ISO 18000-6C), ISO 18000-6A/B
- Antenna**Dual, one inbuilt antenna & one 50 Ohm TNC connector for external antenna
- Internal Antenna Gain**9 dBi
- Internal Antenna Polarization**Circular polarization
- MCU**Arm Cortex-M4
- RF Power**0 - 31.5 dBm
- RF Power Control**Command-adjustable with separate read and write levels
- Default RF Power**31.5 dBm
- Read range**>10 m, with suitable antennas
- RF Sensitivity**< -90 dBm
- RSSI**Supported
- Maximum Tag Read Rate**700 tags/s (with 16-bit tag EPC length)
- Tag Read Indication**LED and buzzer
- Carrier Cancellation Circuitry**Enabling pre- and re-tuning
- Dense Reader Mode**Supported
- Auto Pilot Mode**Supported

## User Environment

- Environmental Sealing**IP65 rating
- Operating Temperature**-25 to 65 °C
- Storage Temperature**-45 to 90 °C
- Relative Humidity**10 % to 90 %





## Visual and Sound Indicators

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- |                           |                      |
|---------------------------|----------------------|
| • <b>Power</b>            | Red LED              |
| • <b>Inbuilt Antenna</b>  | Yellow LED           |
| • <b>External Antenna</b> | Yellow LED           |
| • <b>Tag</b>              | Green LED and buzzer |

## Accessories Included

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- Reader
- Power adapter
- Mounting brackets
- USB cable
- User manual
- Free demo software


## Applications


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- Toll Collection Management
- Automatic Boom Barrier
- Access Control
- Jewelry Management
- Smart Attendance Systems
- Smart Parking Areas
- Warehouse Management

## Contact Details

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Note - All the mentioned specifications are subject to changes without notice.

