

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



Product Datasheet

One Port Integrated Reader

Model No. : SN-IR 101

Scratchnest

ScratchNest SN-IR 101 is a compact and fully integrated Long Range RAIN RFID Reader that works in the ultra-high frequency range. It boasts various features including a built-in 9 dBi circular polarized antenna and USB, RS-232, RS-485, and LAN interfaces that make it easy to install and use. To add on, the range of RF power is 0 to 30 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**inbuilt antenna
- **Internal Antenna Gain**9 dBi
- **Internal Antenna Polarization**Circular polarization
- **MCU**Arm Cortex-M4
- **RF Power**0 - 30 dBm
- **RF Power Control**Command-adjustable with separate read and write levels
- **Default RF Power**30 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

- | | |
|--------------------------|----------------------|
| • Power | Red LED |
| • Inbuilt Antenna | Yellow LED |
| • Tag | Green LED and buzzer |


Accessories Included


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


Applications


- Warehouse Management
- Toll Collection Management
- Assets and Inventory Management
- Access Control
- Smart Attendance Systems
- Smart Parking Areas

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

