# API-Ready RFID Reader for Intelligent Logistics and Manufacturing

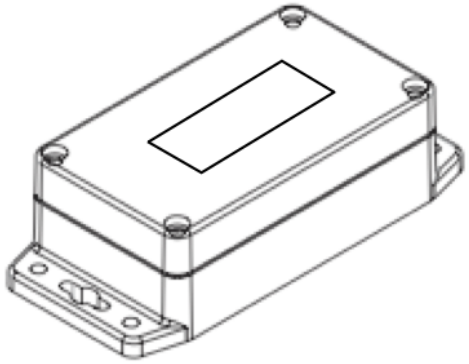
## Product Description

The IoTReady API-ready RFID reader is an integral component in any data-driven manufacturing system. It enables you to easily implement key logistics functions such as part and product checks, presence/absence detection, flow tracking etc.

Unlike competitive products, this reader comes ready to directly integrate into your workflow processes through a rich set of REST APIs. The reader supports EPCIS compatible event handling and directly generates XML formatted event information.

With its local display and WiFi/Ethernet connectivity, it provides easy access to setup and configuration functions. The protocol stack enables real-time updates of measurements to any destination application. Longevity is enabled through the use of over-the-air updates.

Built to IP64 specifications and capable of operating over industrial temperature ranges, this is an ideal device to deploy in all kinds of traceability and access control applications.



Dimensions (LWH) 145 x 66 x 40 (mm)
*Representative Image - Final enclosure design available end of September 2021*

## Key Features

- EPaper display for long battery life and rich local interface e.g. low battery, indicator comm status, scan result, scan error.
- Battery powered with automatic recharging of the battery

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|---|---|
| Function | API-ready RFID Reader |
| Use | Industrial, Logistics, Access Control |
| Operating Temp. | -20C to +70C |
| Operating Humidity | <95% ( +25C) non-condensing |

- Simple Bluetooth /WiFi interface allows you to easily configure the device and integrate into your system
- Efficient network communications over web-sockets enables fast, low-overhead bi-directional messaging
- Self-hosted REST and Websockets APIs
- Easily integrates with AWS IoT or SAP IoT frameworks by supporting MQTT, EPCIS events and XML generation.
- Easy to use, documented API (subject to change)

## Communications Interfaces

Uses websockets over WiFi/Ethernet as its default communications mechanism. This enables pushing of events to receivers with minimal overhead.

Device also supports MQTT over WiFi/Ethernet with configurable support for sending data to AWS IoT or SAP IoT

For simpler systems, uses HTTPS messaging over WiFi/Ethernet

## System Integration

SImple system integration support builtin.

Initialization can use either BLE or WiFI. For WiFI , on powerup, the system displays a QR code. This QR code can be scanned by the configuration app to set up the device to connect to the desired WiFi network.

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| Protocol | EPCglobal UHF Class 1 Gen 2 / ISO 18000-6C |
| Operating Frequency | 902Mhz – 928Mhz<br>865MHz – 868MHz(Optional) |
| Peak Read Speed | > 50 labels/sec |
| Label buffer | 200 labels @96 bit EPC |
| Range | 2.2dBi Ceramic antenna 1m<br>5dBi Ceramic antenna 2-3m<br>8dBi Circular polarization plate antenna > 10m<br>12dBi Linear polarization antenna > 15m<br>*All ranges are tag dependent* |
| Display Size | 296x128, 2.9inch E-Ink display |
| Comm. Interface | WiFi, Ethernet & BLE.<br>HTTPS over WiFi<br>Websockets over WiFI (default)<br>MQTT over WiFi (AWS IoT & SAP IoT) |
| Platform Dimension | (LWH) 120 x 60 x 50 (mm)<br>(subject to change) |
| Base Construction | Sealed ABS enclosure with cutouts for Ethernet, Micro USB and SMA connectors (optional) |
| Power Supply | 3.7V/2800 mAH Rechargeable LiPo Battery(optional) |

Supports multiple communication channels for sending scan data. In addition when using web-sockets as the communication channel, diagnostics and other performance information can be automatically pushed to management applications.

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| Power Source | 5V DC, Micro USB<br>Power Over Ethernet |
| Full battery charging time | 2.5 hrs |
| Operating Time | 300 Hours (subject to frequency of reads) |
| OTA Updates | OTA updates individually identifiable and upgradeable for each MAC address |
| Integration | Simple QR code scan to set up WiFI |
| Diagnostics | All diagnostics automatically pushed via websocket channels |

## Reach Us

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