# WAVETREND®
RFID | ACTIVATING YOUR BUSINESS

## ACTIVE RFID

- Singular use or as the end reader in an multiple reader daisy chain network
- Standalone store mode for up to 300 Tags
- Selectable Wiegand conversion outputs
- Mustering and Collision avoidance functionality
- Supports RS232, RS485 and USB connection
- Supports wide variety of antennas to achieve custom coverage areas
- Compatible with both L Series and L Series+

The RX211 reader detects and decodes RFID (radio frequency identification) signals from Wavetrend's range of active RFID tags. It can operate in rugged conditions at ultra long ranges, subject to the appropriate antenna being fitted to the unit.

## Access Applications

The RX211 can be configured to run in direct control via a PC or in response mode as a stand alone unit.

In direct control the client PC will receive data from the Access reader and can switch the readers IO's on off to lift barriers open/ shut doors as directed.

The Wavetrend RX211 is the perfect access solution for SME's , Up to 300 unique tag IDs and IO positions can be loaded into the Access reader, once uploaded the Reader will respond automatically without the need for a PC and software application.

The RX211 data output can be selected as a Wiegand output allowing it to be directly controlled by existing Door controllers.

## Worker Safety

The RX211 can be deployed as a standalone unit for both tag detection and mustering scenarios.
In a tag detection application, the user can select the distance that a tag is read and a response from the IO's, ideally suited for proximity alarms in industrial applications.
When a fixed list of up to 500 assets is required in or out of a zone, the Access reader can be preset to respond to all in all out events.

| KEY FEATURES | BUSINESS BENEFITS |
|---|---|
| Remote readers are powered via standard CAT5 cable centralised or distributed PSU topology may be used. | Units can be powered over the network or individually depending on the clients requirements |
| Certified for FCC and ETSI | Can be deployed in all major countries |
| High RF long and short range sensitivity | High near field resolution < 0.5m |
| USB connection | Allows easy installation diagnostics and demonstrations |
| RF hardened Receiver | Maintains high performance in RF noisy backgrounds |
| Configurable protocol support for both L and L series Plus | Can read both L series and L series plus tags |
| Selectable Wiegand format output | Connecting directly into existing door controllers the RX211 can be used as a direct replacement for a passive swipe card reader. |
| Stand alone mode | Automatic response to Pre loaded Tag IDS and IO control without the need of a PC or software application. |

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## Compatibility

The RX211 is designed for use with the Wavetrend IPSU and RX211 serial readers, these products can all be networked using standard cat 5 cabling.

The RX211 can be configured to read both L series and L series tags simultaneously allowing the user to benefit from the added functionality of the L Series+ products whilst still supporting existing L Series tags.

## L Series+

L-Series+ offers a wide range of extra features including:

**Increased levels of security,** Encrypted air interface and secure concealed site code options

**Multiple classes,** allowing the user to select shorter messaging packets for high speed or high density application

**User definable data fields,** with up to 200 characters of user data to be stored on the tag

**Smart telemetry tag,** that alerts the user of out of bound temperature and humidity conditions and that, logs the data

**Greater selection of tag beacon rates** allowing the reduction in spurious transmissions.

## Specifications

| **Environmental** | |
| --- | --- |
| ▪ Operating temperature | : -40$^{o}$C to +85$^{o}$C |
| ▪ Storage temperature | : -20$^{o}$C to +70$^{o}$C |
| ▪ Humidity | : 5% to 90% (non condensing) |

| **Physical** | |
| --- | --- |
| ▪ Size | : 105 mm x 58mm x 28mm |
| ▪ Weight (unit) | : 118 grams |
| ▪ Colour | : Aluminium Grey |
| ▪ Material | : Aluminium |
| ▪ Connections | : 1 x RJ45 socket |
| | : 1 Mini USB type socket |
| | : 2.5mm Power socket |
| | :2 pairs of relay contacts, C, NO , NC |

| **Radio Frequency** | |
| --- | --- |
| ▪ Receive Frequency | : 433.92 MHz |
| ▪ Modulation | : ASK |
| ▪ RF Input | : 50 Ohm BNC |

| **Electrical** | |
| --- | --- |
| ▪ Supply Voltage | : 7V ~ 16Vdc |
| ▪ Max. current consumption | : 20 ma |
| ▪ Two pairs of re lay contacts rated | :1A |

| **Protocol Specification** | |
| --- | --- |
| ▪ Standard Data Rate | : 9,600 ~ 115,200 (baud rate) |
| ▪ Interface | : RJ45 connectors |

## Serial Networking hardware

Completing the networking suite please for all power and access control requirements please refer to the RX211 and IPSU.



**RX210**
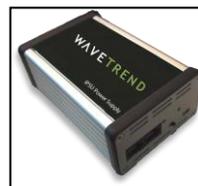


**IPSU**

## RX211 Accessories
## Antenna Ranges

| AN100 | ¼ Whip – up to 50m |
| --- | --- |
| AN200 | ⅛ Stub- up to 20m |
| AN350 | Circular patch to 150m |
| AN400 | Outdoor Whip up to 150m |



**AN100**  **AN200**  **AN350**  **AN400**

*Read ranges are affected by environmental conditions and site configurations and may not match those stated in this sheet. Read ranges will generally be greater outdoors than indoors. With specialist antennas, ranges in excess of 500m can be achieved.

### Ordering & Further Information

For more information on purchasing the RX210 please email the Wavetrend Sales team:

**sales@wavetrend.net**

For more information on Wavetrend$^{®}$ visit our website.

Certifications  CE  iDA  RoHS

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