

ACTIVE RFID



- Instant reporting of detected Wavetrend active RFID tags
- User configurable tag data and read range filters
- Supports RS232 and USB connection
- Extremely low current consumption
- Powered directly from RS232 or externally.

The RX50 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. The data from detected tags is sent by the reader via RS232 or USB to authorized corporate computing systems.

Typical Applications

This entry level reader is ideally suited for customer demos as a stand alone unit when connected over USB.

It is primarily designed to be integrated with 3rd party hardware utilizing the RS232 port which with its low current consumption makes it the ideal choice for adding Active RFID reading capability to telematic systems.

The RX50 is available in two different models, Solo as shown which has an SMA connection to an external antenna* and OEM which is a PCB based unboxed reader that includes an on board Patch Antenna.

KEY FEATURES	BUSINESS BENEFITS
Compact Size	Ideal for Integration into 3 rd party hardware
Reader status indication by LED's at RJ45 connectors.	Provides activity and function diagnostics
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
Supports Full RX2XX Protocol	Compatible with any RX202/RX210 software
Two modes of data transmission: <ul style="list-style-type: none"> ▪ Hardware auto-polling: tag data provided automatically from Reader network ▪ Software polling: tag data requested from each reader individually by intelligent edge devices or host application. 	<ul style="list-style-type: none"> ▪ Hardware auto-polling allows for the continuous feed of tag data to the system in the fastest possible manner. ▪ Software polling allows for dynamic communication with each reader by software applications, instant notification of reader offline and customization of reader polling order and frequency.

*The RX50 does not include the SMA antenna shown it can be ordered as part number AN50



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Compatibility

The RX50 supports the RX202/RX210 protocol including their baud rate ranges.

The extremely low current consumption allows the RX50 to be driven by some RS232 devices directly. Not all RS232 provide sufficient current so in this event the RX50 can be powered via its 2.5mm Power Socket.

Despite its small size the RX50 is capable of reading tags at ranges from 0.5 to 500m.*

The RX50 Solo can be connected to any SMA male antenna or Via a SMA to BNC connector the rest of the antenna in the Wavetrend product range

RX50 Accessories Antenna Ranges

AN50 1/8 Stub- up to 20m



AN50

*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 RX50 please email RFID Canada:

sales@rfidcanada.com

For more information on RFID Canada visit our website.

Specifications

Environmental

- Operating temperature : -40°C to +85°C
- Storage temperature : -20°C to +70°C
- Humidity : 5% to 90% (non condensing)

Physical

- Size : 55 mm x 50mm x 28mm
- Weight (unit) : 80 grams
- Colour : Aluminum Grey
- Material : Aluminum
- Connections : 1 RS232 DB9 socket
: 1 Mini USB type socket
: 2.5mm Power socket

Radio Frequency

- Receive Frequency : 433.92 MHz
- Modulation : ASK
- RF Input : 50 Ohm SMA Female

Electrical

- Supply Voltage : 3.3 -15Vdc Via Power Socket
- Max. current consumption : 9mA

Protocol Specification

- Standard Data Rate : 9,600 ~ 115,200 (baud rate)
- Interface : RS232 / USB connectors

FCC Statement of Conformity Wavetrend, RX50

This device complies with Part 15 of the FCC rules subject to the following two conditions:

- 1) This device may not cause harmful interference.
- 2) This device must accept all interference received, including interference that may cause undesired operation.
- 3) Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Certified for FCC and CE use



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For more information, visit: www.rfidcanada.com

Email: info@rfidcanada.com

+1 905-513-8919