

ACTIVE RFID



- Powerful, robust and low cost mobility tool for active RFID asset management solutions
- Standard Range and Long Range models available
- Quickly and easily installed
- Allows for simultaneous use of multiple other WORKABOUT PRO expansion modules.
- User's choice of out-the-box or customised applications to process detected tag data

The RX2100 PT End-Cap Reader is the only Active RFID expansion module for the Psion Teklogix WORKABOUT PRO 2nd and 3rd Generation Handheld Computer available today. The PT End-Cap Reader detects and decodes RFID (radio frequency identification) signals from the Wavetrend® active RFID tags. It can operate in rugged conditions at both 'short' ranges or at ultra long ranges, subject to the appropriate version being fitted to the WORKABOUT PRO. The End-Cap reader provides unrivalled mobility solutions for customers seeking to identify, locate or audit tagged assets outside of areas monitored by fixed RFID reader networks.

Typical Applications

The RX2100 PT End-Cap Reader allows the user to quickly and easily search for and locate tagged assets using the WORKABOUT PRO, whether it is being used as a standalone mobile reader or as part of an enterprise asset management system that also employs a network of Wavetrend® fixed readers.

Tagged asset information is displayed by a suitable application installed on the WORKABOUT PRO enabling complete management of all tagged assets by mobile users, even if they are out of range of a fixed reader network. This data enables the automation of business decisions about all tagged assets, based on accurate and near real-time knowledge of their location and condition.

With mobility in mind, the design of the RX2100 End-Cap reader allows multiple other expansion modules to be installed and used on the WORKABOUT PRO hand-held computer simultaneous with the active RFID reader module.

Users can combine their choice of barcode scanners, imagers, wireless LAN & WAN adaptors, GPS positioning and GSM/GPRS/EDGE communication modules together with the active RFID reader. This allows users to deploy powerful mobile RFID solutions across a wide array of asset management, location and tracking activities to suit their specific needs, with information passing between the mobile reader and back end asset management system in real-time, as required. Barcode data can now be easily associated with the active RFID tag identity number, ideal for supply chain management systems.

Connections

Connection to the WORKABOUT PRO is via its internal USB socket leaving the device's 100 pin connector and other expansion slots free for use with other expansion devices. The RX2100 PT End-Cap Reader allows space for the of the Psion Teklogix GPRS/GSM internal antenna within the RX2100's end-cap housing.

KEY FEATURES	BUSINESS BENEFITS
Available in both Standard Range and Long Range versions.	The standard range reader can be used for close proximity asset identification and quick location in environments such as indoor storage facilities or warehouses. The long range reader allows for ultra-long range asset identification and audits in outdoor storage facilities or yards.
Connects to the W/A Pro through the device's internal USB port	'Plug and Play' ease of physical installation, the other expansion ports remain available to use.
Reader is housed in a standard, approved Psion Teklogix end-cap.	Allows for quick and easy attachment to any appropriate Psion Teklogix WORKABOUT PRO G2/G3 handheld computer.
Allows combination with GPRS, GSM, Wi-Fi and Barcode expansion modules on a single WORKABOUT PRO unit.	Provides real-time data connectivity to enterprise systems, accurate reader location (and by extension tag location) to GPS coordinates and barcode / RFID tag associations.
Signal Strength information is reported with every tag.	Allows for limitation of read range directly on the reader through signal strength filtering and can give an idea of the tag's proximity to the reader.

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Operating Applications

Both Wavetrend and select Wavetrend Accredited Solution Partners offer users a choice of either out-of-the-box mobile reader solutions that will operate on the WORKABOUT PRO with the RX2100; or customised mobile applications created to suit specialist or specific user requirements.

The RX2100 can be supplied with the Wavetrend TagHound demonstration software (sold separately). TagHound allows the user to simply scan an area for tags, displaying the number of tags found and the detected tag ID numbers. The user can then select to find the location of an individual tag by following the 'tagometer'™ bar, which changes colour from red to green as the operator gets closer to the target tag.

For more information on the range of applications available from Wavetrend and our partners, please contact Wavetrend.

Typical free-air read ranges for the RX2100 models and versions*

L-RX2100	up to 15m
L-RX2100-LR	up to 70m



*RX2100 End-Cap
Standard Range
Version with Internal
Antenna*



*RX2100-LR End-Cap
Long Range Version with
External Antenna
(supplied)*

Model Range

L-Series	
L-RX2100	: Short Range End-Cap
L-RX2100-LR	: Long Range End-Cap

Air Interface Protocols

'L-Series' refers to a proprietary communication protocol used between Wavetrend tags and readers.

Specifications

Environmental	<ul style="list-style-type: none"> Operating temperature : -40°C to +75°C Storage temperature : -40°C to +85°C Humidity : 5% to 90% (non condensing)
Physical	<ul style="list-style-type: none"> Size (excl. ext. antenna) : 100mm x 60mm x 30mm (approx) Weight (unit) : 65 grams Colour : Black Material : ABS Connections : Molex Psion Teklogix USB : SMC connector (RX2100-LR only)
Radio Frequency*	<ul style="list-style-type: none"> Receive Frequency : 433.92 MHz Modulation : ASK Stability : 20ppm over -10°C to +60°C Sensitivity : -70 dBm (preliminary) RF Input (RX2100-LR only) : 50 Ohm SMC (female)
Electrical	<ul style="list-style-type: none"> Supply Voltage : ± 5Vdc Max. current consumption : <15mA ESD protection : 2kV Human Body Model
Supplied Accessories	<ul style="list-style-type: none"> External Antenna (RX2100-LR only) : 433 Mhz ¼ Wave Whip
Operating System	: This unit is only compatible with G2/G3 that operate mobile. It is not CE compatible.
Please Note: Use of any other external antenna on the RX2100-LR that is not expressly approved by Wavetrend may invalidate the certified approvals of the product and void the user's authority to operate the product.	

Read Range

The read range of the RX2100 is achieved through use of an internal antenna while the ultra-long read range of the RX2100-LR is achieved through use of the external antenna supplied with the reader.

*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.

It is strongly recommended that the services of a properly trained engineer from a Wavetrend Accredited Partner or Wavetrend Professional Services are employed to determine if the RX2100 will provide a suitable level of performance and to select the correct version for the intended application.

Ordering & Further Information

For more information on the RX2100 PT End-Cap Reader or for purchase information please email Wavetrend's Sales team:

sales@wavetrend.net

For more information on Wavetrend®, please visit our website.

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