

ion R4300P
UHF Long Range
Reader with GPRS



The first UHF RFID portal reader with
embedded GPRS

General Info

Features

- EPC C1 G2, ISO 18000-6C Compliant
- Multi-Regional Support
- Embedded Intelligence
- Ethernet Port
- USB 2.0 High Speed Host Port
- Internal MicroSD slot
- Integrated GPRS modem (optional)
- Easily deployable & scalable

Applications

- RFID tunnels
- Portal applications
- On vehicle installations
- Industrial control
- Access control systems
- Point of sales devices (smart shelves, smart displays)

The Ion (Model R4300P), is the top-of-the-range portal reader of the easy2read® Family.

CAEN RFID has carefully designed the device taking into account customer requests and on-field experience on RFID installations. The result is not only an UHF reader, it's a unique combination of outstanding RFID reading performances, computing power and communication capabilities.

The reader is optimized for portal installations, featuring full power to up to 4 antennas, Gen2 Dense Reader Mode management and high speed read rates.

Based on an embedded HW architecture (x86) and standard operating system (Linux), the Ion eases the development of custom software and solutions.

The on-board computing power and connectivity remove the need for an external PC and related cabling. This results in deployment and operations cost savings, thus reducing the total cost of ownership of installed devices.

The Ion is best suited for complex AutoID scenarios, where the information can be collected and fed directly to the reader from multiple sources such as Smart Card readers, Barcode readers, GPS and other in-field sensors.

All data can be handled locally through data buffering, filtering and aggregation, in order to directly provide decision-making data to higher level Business Intelligence processes. The same data can also trigger local actuators and screen displays for in-field real-time processes in a standalone mode.

The presence on board of an optional integrated GPRS modem, together with its compact and versatile form factor, allow to use it in any worldwide installation requiring RFID usage in remote areas.

As a result of all the above, the Ion allows solution providers to customize the reader to each application, thus creating their own specialized devices accordingly.

The Ion complies with and can operate in different regulatory environments (Europe, US, Australia, China, Korea, Japan, Singapore, Taiwan).

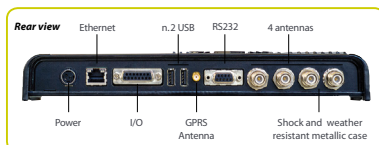
CAENRFID**easy2**

products family

easy2read® Family

The easy2read® family constitutes a complete and reliable product line of readers for any Auto-ID need. A reading range from a few centimetres up to 7-8 metres distance makes the easy2read® family suitable for applications such as access control, UHF gates, desktop reading or OEM modules for integration into handheld or printer devices.

- OEM Readers
- Fixed Readers
- Desktop Readers

easy2read®**Technical Specifications Table**

Frequency Range	902÷928 MHz (FCC part 15) 865.600÷867.600 (ETSI EN 302 208)
RF Power	Up to 32 dBm (~1.6W) conducted
CPU	Intel Atom Z510 CPU @ 1.1Ghz
Memory	512 Mbytes RAM, 512 Mbytes SSD, 2Gbytes MicroSD
Operating System	Linux (Debian)
Scripting	- Python 2.5 language interpreter - Java Virtual Machine
Host Interface Protocols	- EPCGlobal LLRP RFID host-to-reader protocol - CAEN RFID host-to-reader protocol
Antenna Connector	4 TNC Reverse Polarity
Receiving Capability	Gen 2 Dense Reader Mode Management Data rate up to 400 Kbits/s
Std. Compliance	EPC C1 G2/ISO 18000-6C
Digital I/O	13 GPIO pins, TTL level
Connectivity	RS232 Serial Communication (DB9); USB 2.0 High Speed Host Port; Ethernet 10/100BASE-T (RJ45)
Wireless Comm.	GSM/GPRS (SMA) (optional) WiFi (optional via USB host)
Internal Interfaces	MicroSD slot SIM card housing (optional)
IP Rating	IP52
MTBF	135'000 hours
Dimensions	(W)275 x (L)155 x (H)39 mm ³ (10.8 x 6.1 x 1.5 inch ³)
DC Power	9÷36 VDC(30W)
Operating Temp.	-20 °C to 55 °C
Weight	1.3 kg

Ordering Options

Code Description

Reader

WR4300PXAAAA R4300P - ION - RFID UHF Portal Reader

WR4300PXGPRS R4300P - ION - RFID UHF Portal Reader with GPRS

Development kit

WR4300PDKAAA R1230CBDK - Development kit with Quark reader, antenna, tags

WR4300PDKGPR R4300P GPRS Ion Kit

Accessories

WANTENNAX005 Circular polarized antenna

WANTENNAX018 GPRS Antenna for Ion

WALIM0000003 Power Supply for Ion R4300P

WCAV0AAAX005 5 m RF Antenna Cable TNC/RP-N type

WCAV0AAAX006 15 m RF Antenna Cable TNC/RP-N type



CAENRFID S.r.L. - Via Vetraria, 11 - 55049 Viareggio - Italy

Tel. +39.0584.388.398 - Fax +39.0584.388.959 - info@caenrfid.com - www.caenrfid.com

For more information, visit our web site:

www.caenrfid.com

Copyright © CAENRFID srl. All rights reserved. Information in this publication supersedes all earlier versions. Specifications subject to change without notice.
Printed in May 2013