

QuarkUp - R1270C

500mW RAIN RFID Ultra Compact Module

Features

- RAIN (UHF EPC Class1 Gen2, ISO 18000-63) Compliant
- Multi-regional Support
- Ultra Compact Size
- UART serial port and USB interface
- SW programmable output power up to 500mW (27dBm) conducted
- Low Power Consumption

Applications

- Handheld Device
- Multiregional Label Printers and Applicators
- Point of Sales Devices
- Voice Operated Gloves

General Info

The QuarkUp (Model R1270C), an embedded reader of the easy2read[®] product line, is a multiregional ultra compact reader for low power, high performance RAIN RFID applications.

With programmable output power in 18 steps from 10dBm to 27dBm, the reader can detect tags at more than 3m of distance (depending on antenna and tag dimensions).

Due to its low power consumption, the module is specifically designed to be easily integrated in battery powered devices.

The radio frequency core of the module permits to achieve fast reading and to be used in dense reader and dense tag environments for top-class rated performances.

The compactness of the device and the board-to-board connector allow to embed the R1270C inside the new small form factor industrial handhelds, smartphone accessories and other compact form factor devices.

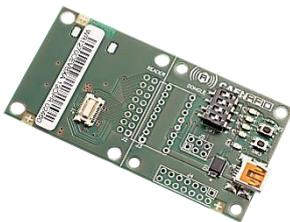
The R1270C complies with and can operate in both European and US regulatory environments and due to its multiregional capabilities, it's ideal for integration in devices requiring compliance to different geographical regions.



- Embedded Readers
- Mobile Readers
- Integrated Readers
- Fixed Readers
- Temperature Loggers

easy2read[®] product line

The easy2read[®] product family constitutes a complete and reliable product line of RAIN RFID 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, RFID gates, desktop reading or OEM modules for integration into handheld or printer devices.



Technical Specifications Table

Frequency Range	– 865.600÷867.600 (ETSI EN 302 208 v3.1.1) – 902÷928 MHz (FCC part 15.247)
RF Power	Programmable in 18 levels (1dB step) from 10dBm to 27dBm (from 10mW to 500mW) conducted
Output Power Accuracy	+/- 1dB
Antenna Connector	Nr.1 U.FL type
Frequency Tolerance	±10 ppm over the entire temperature range
Number of Channels	– 4 channels (compliant to ETSI EN 302 208 v3.1.1) – 50 hopping channels (compliant to FCC part 15.247)
Standard Compliance	EPC C1 G2 / ISO18000-63
Digital I/O	4 I/O lines (3.3V level; Iout=3mA max)
Connectivity	USB interface: One USB 2.0 Full Speed (12Mbit/s) device port UART Serial Port: – Baudrate: up to 115200 – Databits: 8 – Stopbits: 1 – Parity: none – Flow control: none – 3.3 V I/O Voltage Level
Dimensions	(W)25 x (L)25 x (H)6 mm ³ (1.0 x 1.0 x 0.2 inch ³)
Power Consumption	2.7W @ RF out = 27dBm 1.6W @ RF out = 23dBm 0.15W in idle mode
DC Power	5.0 VDC +/- 5%
Operating Temperature	-10°C to +55°C
Weight	5 g

Ordering Options

Code	Description
WR1270CXAAAA	R1270C - Ultra Compact Embedded UHF RFID Reader
WR1270CXDKAA	R1270C - Development kit with reader, adapter, antennas, cable and demo tags

Accessories

Code	Description
WR1270CEVBXA	The R1270CEVB evaluation board allows to manage the R1270C Quark Up reader directly via USB interface. This board is particularly suited for Quark Up reader evaluation and SW development purposes.



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CAEN RFID srl via Vetraria, 11 - 55049 Viareggio (LU) - Italy
Tel. +39 0584 388398 Fax +39 0584 388959



www.caenrfid.com



info@caenrfid.com