



**COMING SOON**



## Hadron - R4320C

**High Performance  
4-port Embedded  
RAIN RFID Reader**

### Features

- RAIN (UHF EPC Class1 Gen 2 ISO 18000-63) Compliant
- Multiregional support
- Four 50 Ohm MMCX antenna connectors
- USB full speed and serial interface (TTL levels)
- Up to 31.5 dBm

### Applications

- High performances handheld and sleds
- Point of sales readers
- Self-service kiosks
- Industrial automation readers
- Full portal readers
- Long range read points

### General Info

The Hadron (Model R4320C), embedded module of the easy2read<sup>®</sup> product line, is a RAIN RFID multiregional compact reader for high performances applications. With programmable output power from 10dBm to 31.5dBm, the reader reaches top reading performances being able to detect RAIN tags from a distance of 9 m. (30 feet) depending on the antenna and the tag used.

The radio frequency core of the module allows to achieve fast reading/writing operations and to work in dense reader and dense tag environments for top-class rated performances.

Due to its compact form factor, the module is specifically designed to be easily embedded in battery powered devices such as high performances handhelds and sleds. Thanks to the 4-antenna ports and the high power capability, the Hadron module is the perfect RAIN RFID core component to design full size readers for portals, industrial automation readers or any RFID device requiring long reading distances.

The Hadron reader complies with and can operate in both European and US regulatory environments and, thanks 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<sup>®</sup> product line

The easy2read<sup>®</sup> 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<sup>®</sup> 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

|                                     |   |
|-------------------------------------|---|
| <b>Frequency Range</b>              | – 865.600÷867.600 MHz (ETSI EN 302 208 v3.1.1)<br>– 902÷928 MHz (FCC part 15.247)   |
| <b>RF Power</b>                     | Programmable from 10dBm to 31.5dBm (30dBm for FCC)  |
| <b>Output Power Accuracy</b>        | +/- 1dB   |
| <b>Antenna VSWR Requirement</b>     | < 2:1 for optimum performances  |
| <b>Antenna Connectors</b>           | Nr. 4 MMCX jacks  |
| <b>Frequency Tolerance</b>          | ±10ppm over the entire temperature range  |
| <b>Number of Channels</b>           | – 4 channels (compliant to ETSI EN 302 208 v3.1.1)<br>– 50 hopping channels (compliant to FCC part 15.247)  |
| <b>Standard Compliance</b>          | EPC C1G2 / ISO18000-63  |
| <b>Digital I/O</b>                  | 4 I/O lines 3.3V out @ 3mA; 5V tolerant   |
| <b>Forward Link Characteristics</b> | PR-ASK 40kBit/s; DSB-ASK 160kBit/s (FCC only)   |
| <b>Return Link Characteristics</b>  | – Miller encoding (M=4; LF=250kHz)<br>– Miller encoding (M=4; LF=300kHz)<br>– FMO 400kbit/s (FCC only)  |
| <b>Connectivity</b>                 | USB interface<br>One USB 2.0 Full Speed (12 Mbit/s) device port<br><br>UART Serial Port<br>– Baudrate: up to 115200<br>– Databits: 8<br>– Stopbits:1<br>– Parity: none<br>– Flow control: none<br>– 3.3 V I/O voltage level |
| <b>Dimensions</b>                   | (L) 60 x (W) 42 x (H) 7,5 mm <sup>3</sup>   |
| <b>Power Consumption (max)</b>      | 8.5W peak (TX/RX mode)  |
| <b>DC Power</b>                     | 3,5 VDC ÷ 5.5 VDC   |
| <b>Operating Temperature</b>        | -20°C to +60°C  |
| <b>Weight</b>                       | 35 g  |



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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](http://www.caenrfid.com)



[info@caenrfid.com](mailto:info@caenrfid.com)