

RÆVO

IP Radio modem



RÆVO is a radio modem operating in **UHF** band. Designed to transport **standard IP protocols** and to keep very low consumption, it can be usefully employed in the creation of networks distributed throughout the territory.

The **RÆVO** can be used as a terminal, a repeater or a radio panel. The operating mode of the single radio modem can be configured both with pairs of frequencies (Tx/Rx) and with a single frequency, in the UHF band.

Radio modems are suited to the creation of Point-to-Point and Point-to-Multipoint connections, even with very complex networks. **RÆVO** is a product with **very low power consumption**, especially designed for use in environmental monitoring and warning systems, where the mains power supply is not always available. As such, the radio is developed to ensure functionality even when powered by a solar panel and buffer battery.

The **RÆVO** facilitates interfacing with external devices via 3 ports:

- **Serial RS485**-Connector M12 code A to 5-pole
- **Serial RS232**-Connector M12 code A to 8-pole
- **Ethernet**-Connector M12 code D to 4-pole

The connection to the antenna is via a female BNC connector (50Ω).

The radio implements **modulations** with a bit rate of 9600 b/s and 14400 b/s, availing of a Forward Error Correction (**FEC**), a mechanism for the detection and subsequent correction of errors.

The **RÆVO** radiomodem is a **CAETech** product and, as such, is capable of **interacting with various devices and applications**, such as commercial dataloggers with standard interfaces, and user or third-party applications. Indeed, the radio is able to transport **standard IP protocols** over Ethernet and serial ports (PPP). **RÆVO** is compatible with widely used SATEL radios, such as SATELLINE-M3-TR4, -EASy, -Easy Pro, -Easy Pro+ and SATEL-EASy+, and also with other manufacturers' radio protocols. As per all CAETech products, it implements **Zero Breakdown Technology** logic, hence it is also configurable for sending **diagnostic information** to the operations hub.

The radio also complies with Directives RED 2014/53/EU and 2011/65/EU (ETSI EN 300 113, ETSI EN 301 489-1, ETSI EN 301 489-5, EN 62368-1, EN 62368-1/AC, EN 62368-1/A11, EN 62368-1/AC, EN 50385, EN 50581).



RÆVO radio data transmission module	
GENERAL CHARACTERISTICS	
Manufacturer and model name	CAE, RADIO MODEM RÆVO
Frequency band	403-473 MHz
Channel rate	12.5 KHz
Interface	RS232, RS485, Ethernet
Operating temperature	-20 ÷ +55 °C
Modulation types	4FSK, 8FSK, 16FSK
Transmission speeds	9600 bps 14400 bps
Radiosensitivity	-115 dBm (ETSI EN 300 113)
Data protection	FEC (Forward Error Connection)
Encryption	AES128
Supported protocols	IP
ELECTRICAL CHARACTERISTICS	
Power supply range	10 ÷ 16 Vdc
Maximum absorption @ 12.5 V	100 mA (1,25 W) receiving (Rx) 400 mA (5 W) transmission (Tx) @ 1 W <i>with Ethernet on +30 mA (+375 mW)</i>
Output power	1 W
MECHANICAL CHARACTERISTICS	
Dimensions	82 x 180 x 52 mm (w x h x d)
Weight	380 g
Electronic enclosure	In aluminum, IP65 degree of protection

Values are subject to change without a notice.



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