

Magellan License-Free Radio Modem



License-Free Radio Modem Datasheet

The Magellan License-free radio modem enables two-way, half-duplex, wireless data transmission over a range of several thousand meters in open space.

The radio modem consists of a single board that integrates a multi-channel radio transceiver and a digital processing unit. The board's power input features a wide DC voltage range.

Available in a ready-to-use, IP65-approved enclosure, the radio modem can operate in the 863/870 MHz band (Europe) according to the European directive RTTE EN300-220/EN 301-489, or the 902/928 MHz band (United-States) according to the FCC Part 15.247. The radio modem has been certified in these two standards.

The radio modem is fitted with a communication port of the RS232 type and comes with a cable for connection to a ProMark3 RTK. When this cable is used, the radio modem is directly powered from the ProMark3 RTK and the radio settings can be performed from the ProMark3 RTK

Magellan License-Free Radio Modem Technical Specifications

Part Number:	863/870 MHz version (Europe)	915 MHz version (USA)
One-radio set	990587	990588
Two-radio set	990580	990581
RF		
Programmable frequencies	869.400 to 869.650 MHz	902 to 928 MHz
Radiated RF power	500 mW (+27 dBm)	500 mW (+27 dBm)
Sensitivity	-106 dBm (WB) –110 dBm (NB)	-106 dBm (WB) –110 dBm (NB)
Number of channels	3	FHSS/50
RSSI	Available through AT commands	Available through AT commands
Radio data rate	10,000 bits/s	10,000 bits/s
Embedded Protocols	Proprietary	Proprietary
Embedded Profiles	Multi-mode modem	Multi-mode modem
Modem Interface		
Serial link rate	600 up to 57,600 bits/s	600 up to 57,600 bits/s
Serial ports	RS232 (Tx/D, Rx/D, RTS, CTS) or RS485	RS232 (Tx/D, Rx/D, RTS, CTS) or RS485
Flow control	None or hardware	None or hardware
Configuration	Through ProMark3 RTK application	Through ProMark3 RTK application
Modes	Transparent or addressed	Addressed Secured
General information		
DC power voltage	5 to 36 V	5 to 36 V
Consumption (TX/RX)	2.3 W / 0.3 W	2.3 W / 0.3 W
Operating temperature	-20°C to +70°C	-20°C to +70°C
Range	6000 m in open space	6000 m in open space
Size (HxWxD in mm)	145 x 100 x 40 + 85 antenna	145 x 100 x 40
Antenna height (in mm)	85	85
Packaging	IP65 box	IP65 box
Standard compliance	RTTE EN300-220 / EN301-489	FCC Part 15.247

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