

D5 SERIES | RADIANT



The D5 Series is an integrated radiomodem with an internal dipole antenna, and is software configurable.

The D5 Series uses an internal dipole antenna which results in no signal attenuation, due to a connection between the radio and antenna. This allows installation of the D5 series at a greater distance from the data signal source.

A robust, multi-pair serial data cable connection allows use in outdoor installations.

OPERATING BAND

The D5 series operates in the free use 868 MHz band allowed by the European Community according to ERC 70-03 (suitable for use with D540 series).

OPERATIONAL FUNCTION

4 operating modes that are software programmable: mirror point to point, point to multipoint, broadcasting, and digipeater-- which allows multipath data routes, to ensure data delivery.

LOW POWER

The Low power design along with the power saving function, allows for extended battery life.

CONSTRUCTION

Robust construction with surface mounted components, ensure highly-stable electronics. Being housed in an IP65 enclosure, allows the D5 Series to be located in unfriendly environments.

The optional 6 element YAGI antenna is available for transmissions over longer distances.



ERE
WIRELESS

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NOMENCLATURE & ACCESSORIES D5 4 0 - 4 0 6 E 00

\bar{a} \bar{b} \bar{c} \bar{d}

a Frequency	c Enclosure
4 UHF 868 MHz	6 fiberglass IP65
b Interface	d Antenna
3 serial port RS485 with M12 connector	30 $\lambda/2$ (dipole, vertical) integrated
4 serial port RD485 with cable 5 meters	50 Yagi 3 elements 868 MHz (1,5 mt)
5 serial port RD485 with cable 10 meters	

FEATURES

GENERAL

	D540-4 Series
Operating band	868-868.6 868.7-869.2 869.4-869.65
Channel number	26 @ CH50 kHz 54 @ CH25 kHz
Canalization	25 - 50 kHz
Modulation	9K00F1D or 18K0F1D
Radio data rate (Tx/Rx)	9600 bps @ 25 kHz - 19200 bps @ 50 kHz
Frequency stability	± 2 ppm
Supply voltage	9-32 VDC
Max consumption	≈ 280 mA@12VDC
Rx consumption	≈ 20 mA @ 12VDC ≈ 17 mA @ 24VDC
Tx consumption	≈ 280 mA @ 12VDC ≈ 115 mA @ 24VDC
EN OFF consumption	1 μ A
Antenna	$\lambda/2$ embedded or Yagi 6 elements
Buffer memoria	1024 bytes

TRANSMITTER

Output power	25/150/500 mW _{ERP}
Frequency deviations	± 3.6 kHz @ 25 kHz ± 4.8 kHz @ 50 kHz
Output power stability	± 1.5 dB

RICEIVER

Sensibility @ BER < 10 ⁻²	CLASS 2 - LBT and AGILITY < -105 dBm @ 50 kHz < -107 dBm @ 25 kHz
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INTERFACE

Data rate	RS485 from 1200 to 57600 bps
Data format	Asynchronous 8,N,1 - 8,E,1 - 8,O,1 - 7,E,1 - 7,O,1 - 7,N,2
Operative modality	Simplex or half-duplex
Operating temperature	-30°C +70°C
Overall dimension	L 420 mm, Ø 40 mm
Weight	750 gr



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