

D1 SERIES RMO | RADIOMODEM



The D1 Series (RMO) are radiomodems with RS232 and RS485 serial connections, configurable by software, either remotely or locally, on the fly by DTE.

OPERATING BAND

The D1 Series offers different bands with different radio powers: 169 MHz@500mW (D110 series) for free use according to the European Community directive; 400 MHz@2W (D160 series) and 436 MHz@500mW (D161 series) for use according to national radio directives.

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. Enclosure options allow the D1 Series to be located indoors or outdoors.

Optional antenna configurations can improve radio transmissions where radio coverage is critical



ERE
WIRELESS

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NOMENCLATURE & ACCESSORIES

D1 10 - 711 E00	Antenna		00	without antenna	
			01	$\lambda/4$ 169MHz (BNC)	
			02	$\lambda/4$ short 169MHz (BNC)	
			03	$\lambda/4$ 433MHz (BNC)	
			20	$\lambda/2$ (dipole, vertical) 169MHz (5 mt, BNC)	
			21	$\lambda/2$ (dipole, vertical) 433MHz (5 mt, BNC)	
			40	Yagi 3 elements 169MHz (10 mt, BNC)	
			41	Yagi 3 elements 433MHz (10 mt, BNC)	
Enclosure		1	Alluminum IP44		
		2	Alluminum IP44 suitable for DIN rail		
Frequency		10	169 MHz	62	390 - 410 MHz
		60	430 - 450 MHz	63	410 - 430 MHz
		61	436 MHz	64	450 - 470 MHz

FEATURES

GENERAL

	D110 Series	D160 Series	D161 Series
Operating band	69.400 - 169.475	430.000 - 450.000 (D160) 390.000 - 410.000 (D162) 410.000 - 430.000 (D163) 450.000 - 470.000 (D164)	436.000,25 - 436.093,75
Channel number	6	1600	8
Canalization	12.5 kHz (tuning spacing 6,25 kHz)		
Modulation	8K50F1D		
Radio data rate (Tx/Rx)	2400 bps 3600 bps		
Frequency stability	$\pm 2,5$ ppm		
Supply voltage	11,5-13,5 VDC		
RX consumption	≈ 60 mA		
TX consumption	≈ 350 mA	≈ 700 mA	≈ 350 mA
DTR OFF consumption	< 100 nA		
Antenna	$\lambda/4$, $\lambda/2$ o Yagi		
Reference Directives	EN 300 220-1/2		

TRANSMITTER

Output power	500 mW _{ERP}	2 W	500 mW _{ERP}
Frequency deviations	± 1.5 kHz		
Output power stability	± 1.5 dB		
Power on adjacent canale	-60 dB		
Spurious radiation compliant to	EN 300 220-1 v.2.3.1	EN 300 113-2 EN 300 390-1 EN 300 296	EN 300 113-2 EN 300 390-1 EN 300 296

RECEIVER

Sensibility	-118 dBm @ 12 dB SINAD
Selectivity	-60 dB
IMD attenuation	-65 dB
Spurious radiation	-60 dBm

INTERFACE

Data rate	RS232 e RS485 from 1200 to 38400 bps
Data format (standard)	Asynchronous 8, N, 1-8,E,1-8,O,1
Operative modality	Simplex o half-duplex
Operating temperature	-20°C +60°C
Overall dimension	90x60x10 mm
Weight	180 gr



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