

UHF Narrow Band Transmitter / Receiver

CDP-TX-05M-R, CDP-RX-05M-R

CDP-TX-05M-R and CDP-RX-05M-R are low power narrow band FSK transmitter and receiver modules, designed for industrial applications operating in sub-1 GHz. The modules contain most of the components necessary for radio transmission in compact housing. The RF channel is fixed but selectable from 4 preprogrammed channels. The receiver is double-superheterodyne and equipped with a SAW filter, ensuring high sensitivity and very good selectivity for stable and long range communication.

The frequency table can be customized according to the customer's requirement. Please contact Circuit Design.

Features

- Low power narrow band FSK with 25kHz channel spacing
- 4 preprogrammed RF channels
- Low voltage operation
- High receiver sensitivity for long range applications with 600m or more at line of sight
- High reliability for industrial applications
- Robust metal housing, high selectivity and shock resistance
- Compact Size
- RSSI (Received Signal Strength) output terminal
- RoHS / R&TTE compliance

Applications

- Industrial remote control
- Security / Alarms
- Telemetry / Monitoring systems
- Tracking systems



General

Parameter	Specification		
	434 MHz	869 MHz A	869 MHz B
Applicable standard	EN 300 220	< -	< -
Communication form	One way	< -	< -
Modulation / Demodulation	FM narrow / FSK	< -	< -
Number of RF channels	4	< -	< -
Frequency (Ch 3) *1	434.0750	869.7500	868.6625
(Ch 2)	433.9200	868.3000	869.2125
(Ch 1)	434.6000	869.8000	869.2750
(Ch 0)	434.7000	869.9250	869.3625
Data rate	100 - 4,800 bps	< -	< -
Frequency stability	+/- 2.5 kHz	< -	< -
Operating temp. range (degree C)	-20 to +65	< -	< -

*1 Factory default frequency channel setting

CDP-TX-05M-R (Transmitter)

Parameter	Specification		
RF output power	10 mW	5 mW	< -
Transmitter start up	< 20 ms	< -	< -
Deviation	+/- 3 kHz	< -	< -
Supply voltage	2.2 to 5.5 V	< -	< -
Supply current at 3.0 V	20 mA	16.5 mA	< -
Dimension	22 x 12 x 6 mm	< -	< -
Weight	3 g	< -	< -
Data in	H=Vcc L=0V	< -	< -

CDP-RX-05M-R (Receiver)

Parameter	Specification		
Receiver type	Double superheterodyne	< -	< -
IF frequency	21.7 MHz / 450 kHz	< -	< -
Sensitivity (12dB/SINAD) (BER<0.1%)	-120 dBm	-116 dBm	< -
Supply voltage	3 to 14 V	< -	< -
Supply current at 3V	28 mA	< -	< -
Dimension	36 x 26 x 8 mm	< -	< -
Weight	13 g	< -	< -

915 MHz version for US, 426 MHz version for Japan and 447 MHz version for Korea are available

Specifications are subject to change without prior notice