

## 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 cases. The RF channel is fixed but selectable within 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.

### Feature

- Low power narrow band FSK 25kHz channel spacing
- 4 preprogrammed RF channels
- Low voltage operation
- High receiver sensitivity for long range applications  
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
- RoHS / R&TTE compliance

### Application

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



### General

Item	Specification		
	434 MHz	869 MHz A	869 MHz B
Applicable standard	EN 300 220	< -	< -
Communication form	One way	< -	< -
Modulation / Demodulation	FM narrow	< -	< -
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)

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	< -	< -

### CDP-RX-05M-R (Receiver)

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	< -	< -

Specifications are subject to change without prior notice

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

## CIRCUIT DESIGN, INC. International Business Division

http://www.circuitdesign.jp  
CDP-TX/RX-05M-R EN DS ver10 Oct. 09  
DS\_CDP-05M-R\_EN\_v10e

7557-1 Hotaka, Azumino, Nagano 399-8303, Japan  
Tel:+81-263-82-1024 Fax:+81+263-82-1016