

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
- RED EN 300 220 / RoHS

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 | < - | < - |
| Receiver Category | 1 | 1.5 | 1.5 |
| 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 | < - | < - |

426 MHz version for Japan available
915 MHz version for US available

Specifications are subject to change without prior notice