

## UHF Narrow Band Transmitter / Receiver **CDP-TX-05M-R / CDP-RX-05M-R**

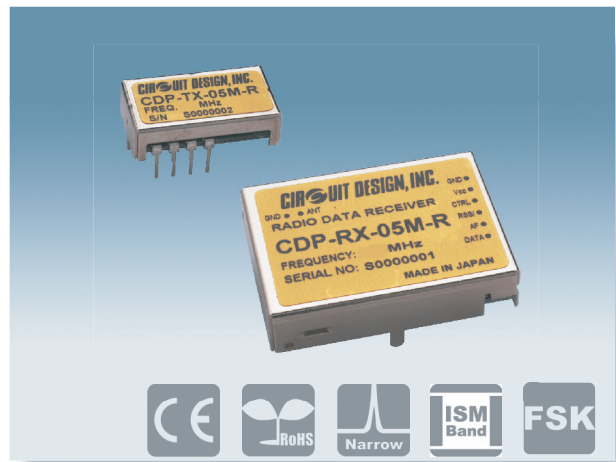
CDP-TX-05M-R and CDP-RX-05M-R are low power narrow band FSK transmitter and receiver modules, designed for industrial applications operating in sub-1 GHz. The modules contain most of the components necessary for radio transmission in compact cases. The RF channel is fixed but selectable within 4 preprogrammed channels. The receiver is double-superhetrodyne and equipped with a SAW filter, ensuring high sensitivity and very good selectivity for stable and long range communication. *Four custom, preprogrammed channel table within the specified frequency band is possible. 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 2.2V | 21 mA          | 17 mA | < - |
| Dimension              | 22 x 12 x 6 mm | < -   | < - |
| Weight                 | 3 g            | < -   | < - |

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

|                          |                        |          |     |
|--------------------------|------------------------|----------|-----|
| Receiver type            | Double superheterodyen | < -      | < - |
| IF frequency             | 21.7 MHz / 450 kHz     | < -      | < - |
| Sensitivity (12dB/SINAD) | -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