

128ch

# UHF Narrow Band Multi Channel Transmitter/Receiver CDP-TX-02F-R, CDP-RX-02F-R 434MHz

The unique and compact CDP-TX/RX-02F-R is a frequency selectable radio data module for the 434MHz UHF band.

Both CDP-TX-02F-R (transmitter) and CDP-RX-02F-R (receiver) are equipped with a frequency synthesizer system including a microprocessor. 128 RF channels are selectable using an onboard 7-bit DIP switch.

The CDP-TX-02FP-R and CDP-RX-02FP-R versions are channel selectable using 14 pin terminal allowing you to perform channel selection remotely.

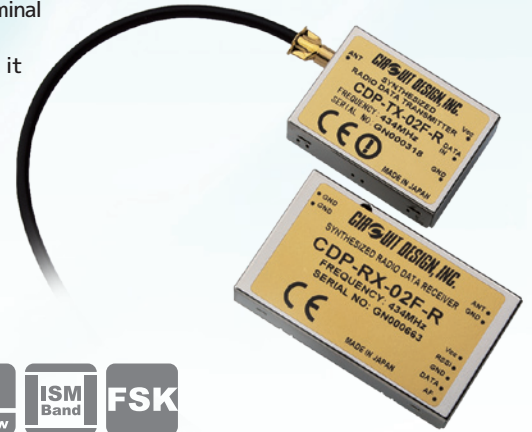
Its small size, low voltage operation, and frequency selectability of CDP-02F-R make it ideal for various applications in sites where many radio transmitters are operated.

## Features

- 128 frequency synthesized RF channels
- 1 mW / 10 mW selectable
- Low voltage operation
- High sensitivity receiver
- FM narrow band modulation
- R&TTE (EN 300 220) / RoHS compliance

## Applications

- Industrial remote control
- Factory automation (Machine to machine)
- Security systems
- Alarms
- Telemetry systems



## General

Parameter	Specification (All ratings at 25 degree C unless otherwise noted)
Communication form	One way
Oscillation system	PLL controlled VCO
Modulation / Demodulation	FSK
Frequency range	433.1875 MHz to 434.7750 MHz
Number of RF channels	128 ch (12.5 kHz step)
Channel spacing	25 kHz
Channel selection method	7 bit switch (CDP-XX-02F-R), 14 pin (CDP-XX-02FP-R)
Frequency stability	+/- 4.0 ppm or less (-20 to + 60 degree C)
Data rate	300 to 4800 bps (Min. pulse width 208 us, Max. pulse width 20 ms)
Operating temp. range	-20 to +60 degree C (No dew condensation)

## CDP-TX-02F-R/ CDP-TX-02FP-R (Transmitter)

Parameter	Specification
Transmitter type	PLL synthesizer
RF output power	10 mW / 1 mW selectable
Transmitter start up time	50 ms (from power on)
Data input	Digital (L = GND H = 3.0 V to Vcc)
Deviation	+/- 2.1 kHz (PN9 4800 bps LPF 20 kHz)
Spurious emission	<-54 dBm (47M - 74M, 87.5M - 118M, 174M - 230M, 470M - 862M) <-36 dBm (Other frequencies below 1000MHz) <-30 dBm (Frequencies above 1000MHz)
Adjacent channel power	<-37 dBm (200 nW)
Supply voltage	3.0 to 12 V DC
Supply current	43 mA typ. at 3V/10 mW 33 mA typ. at 3V/1 mW
Dimensions	36 X 26 X 10 mm (excluding protrusion)
Weight	14 g (without antenna)

## CDP-RX-02F-R/ CDP-RX-02FP-R (Receiver)

Parameter	Specification
Receiver type	Double Superheterodyne PLL synthesizer
Sensitivity	- 120 dBm typ. (at AF / 12 dB/SINAD at CCITT filter fm=1 kHz) - 120 dBm typ. (at DO / BER 1% at 4800 bps PN9) - 116 dBm typ. (at DO / BER 0 error / 2556 bits at 4800 bps PN9)
Adjacent CH selectivity	60 dB (+/- 25 kHz)
Blocking	84 dB (All)
Spurious radiation	-60 dBm (below 1 GHz) -50 dBm (above 1GHz)
Data output	Digital (L = GND H = Vcc)
Supply Voltage	3.0 to 12 V DC
Supply current	30 mA typ. at 3 V 33 mA typ. at 12 V
Dimensions	50 X 30 X 9 mm (excluding protrusion)
Weight	20 g

Specifications are subject to change without prior notice