CIRCUIT DESIGN, INC.

Embedded low power radio modem

MU-D1-R 915 MHz

New

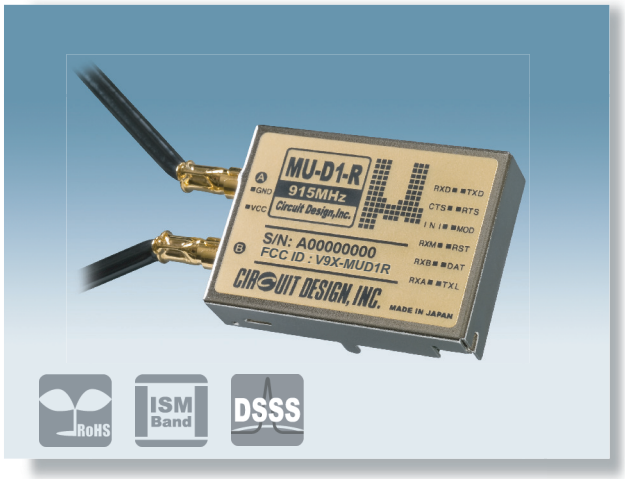
The MU-D1-R is a Direct Sequence Spread Spectrum transceiver that operates in the 900 MHz ISM band under FCC Part 15. Dedicated commands, specially designed for wireless application, are provided for building a range of wireless systems, from simple control systems to wide network systems. For receiving, a true diversity system is employed to achieve stable and reliable communication.

Features

- UART interface with simple command control
- True diversity receiver
- Direct Sequence Spread Spectrum
- PN code length of 15
- BPSK modulation/demodulation
- MU-2 interface compatible
- Power selectable 40 mW / 8 mW
- Robust metal housing for industrial use
- FCC Part 15.247 compliant

Applications

- Telemetry - Environment monitoring, Meter reading, Various measuring applications
- Telecontrol - Remote control for industrial equipment
- Security - Various alarm and monitoring systems



General spec.

Item	Specification	Remark
Standard	FCC Part 15.247	
RF output power	40 mW / 8 mW	Selectable by the command
Radio communication speed	600 kbps	40 kbps x 15 chips
Frequency range	902.5 to 927.50 MHz	
Number of channels	20	
Operating temperature	-20 to + 65℃	
Operating voltage	4.0 to 5.5 V	
Consumption current	TX: 130 mA RX: 58 mA	40 mW at 5 V
	TX: 55 mA RX: 58 mA	8 mW at 5 V
External dimensions	36 x 26 x 8 mm	Not including antenna
Weight	13 g	

Reference data

Range: Approx. 300 m at 8 mW (Conditions: One-way, 25℃, line of sight distance, antenna height of 1.5 m, vertical antenna)

Serial interface

Item	Specification
Communication method	Serial communication (RS232C format)
Synchronization	Asynchronous / UART
Data speed	19200 / 38400 / 57600 bps
Flow control	RTS / CTS hardware flow control
Parameter	Data length: 8 bit / Parity: (No, Odd, Even) / Stop bit: 1 or 2

Specifications are subject to change without prior notice

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http://www.circuitdesign.jp/

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Sales Division

7557-1 Hotaka, Azumino-city,Nagano 399-8303,Japan

Tel:+81-263-82-1024 Fax:+81+263-82-1016