









DMR Repeater



Product Overview

CRD8400 is Crosscom next generation DMR Repeater and built with flexibility for field deployment and operation in order to meet the demand for instant voice and data communication, communication coverage and delivering reliable and high-performance radio network services.

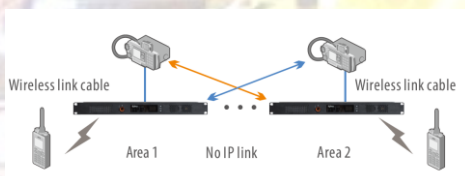
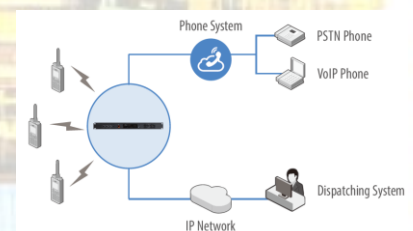
-  **Compact size with 1U Structure.** The compact size of CRD 8400 repeater with 1U height minimizes the space requirements for installation.
-  **AC/DC Auto Switch.** The CRD 8400 repeater support both AC and DC input, and AC/DC auto switching.
-  **TDMA 2 Time Slots.** The CRD 8400 repeater is built based on TDMA digital technology which provides 2 voice channels simultaneously, thereby doubling the capacity without extra frequency and facility, and thus helping users improve efficiency.
-  **Wide Coverage.** The communication range of CRD 8400 repeater is extended with enhanced Rx sensitivity. In addition, the Ethernet port enables access to IP networks, which provides the capability for the CRD 8400 to connect everyone and everywhere.
-  **Analog & Digital Auto Switch.** The CRD 8400 repeater can support mixed channel mode to detect the receiving signal, then automatically switch between analog and digital mode. This offers an easy way to migrate from analog to digital.
-  **IP Multi-site Connection.** The CRD 8400 repeater can be easily connected together by an IP network, both in analog and digital modes, providing a cost-effective solution for the users to deploy a large coverage communication network across multiple areas.

General Solutions

Crosscom offers a range of solutions to enrich functionality of the CRD 8400 series repeater, enable integration with SmartDispatch or SmartOne for dispatching, supports a back-to-back solution for cross-band communication and also the availability of open API for customization requirements.

Flexible Interconnection

The CRD 8400 repeater is designed as an intelligent communication platform and flexible for the connection with a variety of systems to provide seamless communication as well the interconnection with Phone System and Dispatch System.



Wireless Link Communication

The wireless link communication is applicable for forests, highway, and other areas where the wired network is difficult to be deployed. It can provide wireless connection between two systems when there is no IP link.

Connectivity to Application

Connectivity to more applications is available through the interface and API.



Specifications

General	
Frequency Range	UHF1: 400-470MHz, VHF: 136-174MHz
Channel Capacity	64
Channel Spacing	12.5KHz/ 20KHz/ 25KHz
Operating Voltage	DC: 13.6V±15% AC: 100-240V
Current Consumption (DC)	Standby: ≤0.9A Transmitting: ≤12A
Current Consumption (AC)	Standby: ≤0.35A Transmitting: ≤1.2A
Frequency Stability	±0.5ppm
Antenna Impedance	50Ω
Duty Cycle	100%
Dimensions(H×W×D)	44×483×366 mm
Weight	8.0kg
Networking	Single-site Repeater Mode, IP Multi-site Mode;

Receiver		
Sensitivity	Analog	0.22μV (12dB SINAD)
	Digital	0.18μV (Typical) (12dB SINAD)
Adjacent Channel Selectivity	TIA-603	65dB @ 12.5kHz; 75dB @ 20/25kHz
	ETSI	60dB @ 12.5kHz; 70dB @ 20/25kHz
Intermodulation	TIA-603	75dB @ 12.5/20/25kHz
	ETSI	70dB @ 12.5/20/25kHz
Spurious Response Rejection	TIA-603	80dB @ 12.5/20/25kHz
	ETSI	80dB @ 12.5/20/25kHz
Blocking		90dB
Hum and Noise		40dB @ 12.5kHz; 43dB @ 20kHz; 45dB @ 25kHz
Conducted Spurious Emission	≤1GHz	≤-57dBm
	>1GHz	≤-47dBm

Transmitter			
RF Power Output	5-50W (adjustable)		
FM Modulation	11K0F3E @12.5kHz; 14K0F3E @ 20kHz; 16K0F3E @ 25kHz		
4FSK Digital Modulation	12.5kHz Data Only:7K60FXD; 12.5kHz Data & Voice:7K60FXW		
Conducted/ Radiated Emission	Operating	≤1GHz	-36dBm
		>1GHz	-30dBm
	Standby	≤1GHz	-57dBm
		>1GHz	-47dBm
Modulation Limiting	±2.5kHz @ 12.5kHz; ±4.0kHz @ 20kHz; ±5.0kHz @ 25kHz		
FM Hum & Noise	40dB @ 12.5kHz; 43dB @ 20kHz; 45dB @ 25kHz		
Adjacent Channel Power	60dB @ 12.5/20kHz; 70dB @ 25kHz		
Audio Response	+1~-3dB		
Audio Distortion	≤3%		
Digital Vocoder Type	AMBE+2TM		

Environmental Specifications	
Operating Temperature	-30°C~ 60°C
Storage Temperature	-40°C~ 85°C

All Specifications are tested according to applicable standards, and subject to change without notice.

Accessories

