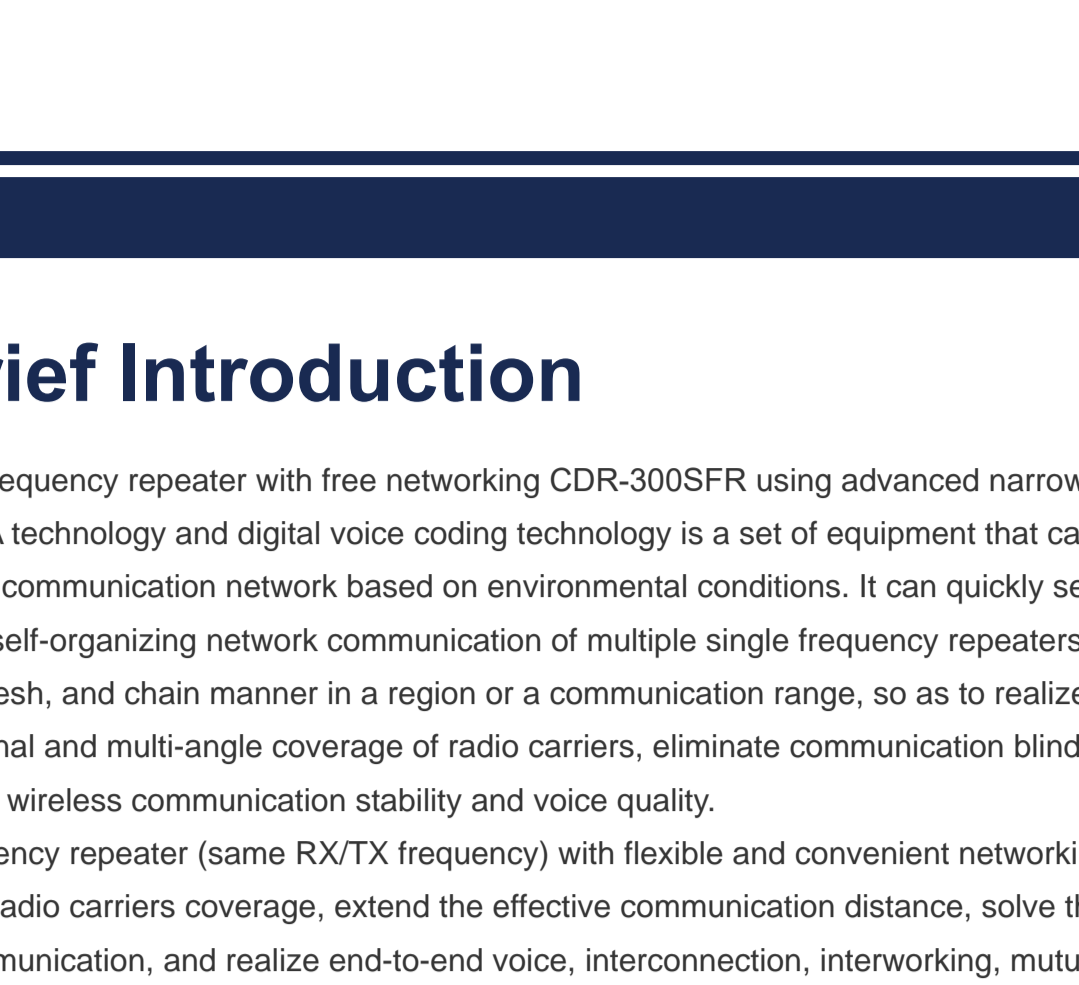


Free networking emergency communication equipment

CDR-300SFR

- Integrated design
- Single Frequency Repeater(SFR) with free networking
- Small size and easy to carry
- Easy switch between AC and DC power supply



Brief Introduction

The single frequency repeater with free networking CDR-300SFR using advanced narrowband digital TDMA technology and digital voice coding technology is a set of equipment that can freely form a radio communication network based on environmental conditions. It can quickly set up emergency self-organizing network communication of multiple single frequency repeaters in a star, tree, mesh, and chain manner in a region or a communication range, so as to realize multidirectional and multi-angle coverage of radio carriers, eliminate communication blind spots and improve wireless communication stability and voice quality.

Single frequency repeater (same RX/TX frequency) with flexible and convenient networking, can expand the radio carriers coverage, extend the effective communication distance, solve the blind area of communication, and realize end-to-end voice, interconnection, interworking, mutual transfer and other communication services. The high efficiency of free networking allows you to control the overall situation at critical moments in multiple occasions to achieve unified dispatching and command.

Application Scenarios:

Suitable for use in rescue, emergency, public security, fire protection, mountains, forests, hotels, high-rise buildings, property management, railways, airports, security and other industries.

Automatic Power Supply Mode Conversion:

- External rated direct current (DC): 12V
- External direct current (DC) wide voltage input: 12V~48V
- Built-in 10A polymer lithium battery; (optional)

Main features:

- Compact size, easy to carry and move in emergency;
- SFR with free networking to facilitate emergency communication;
- Voice landing of speaker microphone;
- Be able to initiate a call by speaker microphone, easy to operate and use;
- The visual design of 1.8-inch TFT display makes the working status clear at a glance;
- External keyboard on speaker mic is convenient for flexible application and operation;

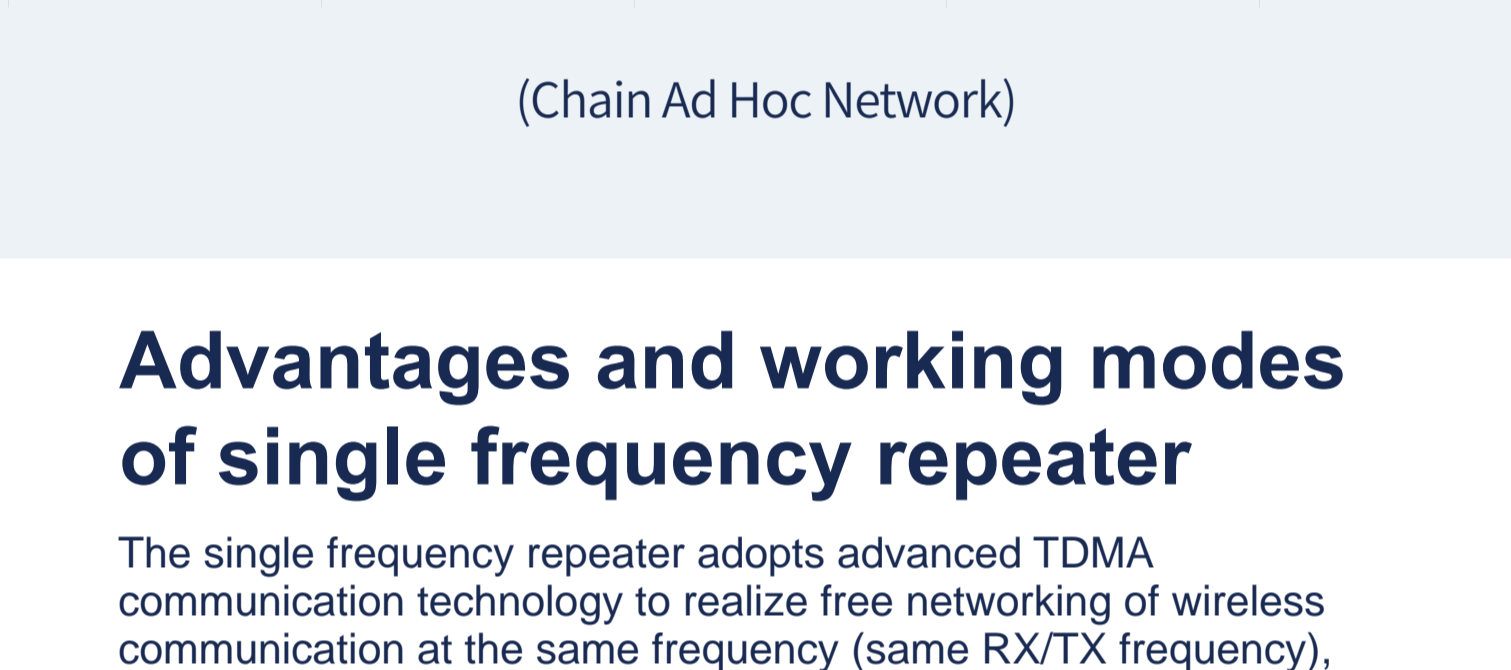
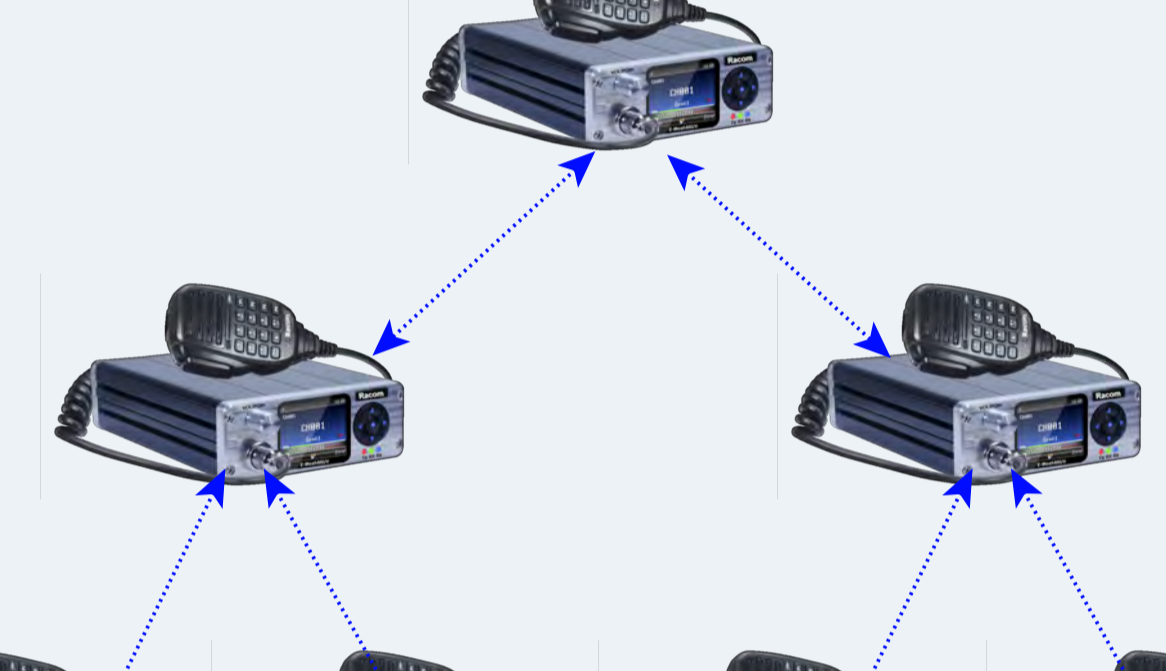
Main application:

- Digital/analog UV dual band & dual standby;
- DMR UV dual-band single frequency repeater with Ad Hoc Network;
- DMR UV dual main/sub-band single frequency repeater;
- Conventional DMR/analog dual band & dual standby;

Measurement



Multi-mode Free Networking



Advantages and working modes of single frequency repeater

The single frequency repeater adopts advanced TDMA communication technology to realize free networking of wireless communication at the same frequency (same RX/TX frequency), and establishes multiple single frequency repeaters in a communication area to realize voice, SMS, positioning and other communication services within the whole network. Every repeater is responsible for a certain coverage area, and can flexibly apply its link networking mode depending on the application environment to realize star, tree, mesh, chain and hybrid networking modes for free deployment, which improves the signal coverage, effectively extends the communication distance, and ensure the smooth communication.



Hd color display

TFT1.8" Hd color display realizes intuitive human-machine visual recognition; multi-mode display is clear at a glance. The efficient applications with simple, convenient and logical operations enable users to quickly operate the radios in an emergency.



Recording

The recording can be wonderful and important materials for some occasions, such as for some teams who have clear responsibilities or some events requiring review. (200 hours as standard, 500~1000 hours as optional)



Application Scenarios

Suitable for use in rescue, emergency, public security, fire protection, mountains, forests, hotels, high-rise buildings, property management, railways, airports, security and other industries.



Main Features

Public Functions:

- 4000 Channels / 16 Zones
- UV dual-band, dual-standby (optional)
- VFO mode
- Scan
- Self-defined buttons
- Menu Operation On/Off
- DMR/Analog detection simultaneously

DMR Functions:

- GPS (Optional)
- Kill
- Revive
- Roaming
- Emergency Alarm
- SMS
- Voice Encryption
- Remote Monitor
- Repeat/Talk Around
- 2 time-slots in DMO
- Single frequency repeater
- 20,000 groups
- Recording up to 200 hours (Optional for 200+ hours)
- 200,000+ contacts
- 250 RX group lists
- 250 Scan lists
- AMBE+2™ Vocoder
- Private/Group/All Call
- 2,000 friend contacts

Analog Functions

- CTCSS
- CDCSS
- SQ Level
- Monitor

Technical specification

General Specification

Items	Specification Sheet
Antenna Impedance	50Ω
Rated Voltage	DC:12V
Frequency Stability (-20℃、+60℃、+25℃)	+/-0.5ppm
Dimension (L*W*H)	120x177x43mm
Battery Capacity (Polymer)(Optional)	10000mAh
Note: Specifications are subject to change from time to time without notice. All specification is conventional standard one.	

Receiver

Items	UHF	VHF
Frequency Range	400-480MHz	136-174MHz
Channel Capacity (Zones included)	4000 (Digital / Analog)	
Channel Spacing	12.5kHz/25kHz	
FM sensitivity(12dB SINAD)	0.2μV	
Digital Sensitivity(5% BER)	0.2μV	
Intermodulation	65dB	
Adjacent Channel Selectivity	60dB@12.5kHz / 65dB@25kHz	
Spurious Rejection	65dB	
Rated Audio	500mw	
Audio Distortion @ rated Audio	3%	
FM Hum & Noise	-40dB@12.5kHz / -45dB@25kHz	
Audio Response	+1、-3dB	
Audio Distortion	3%	
FM modulation	12.5kHz :11KOF3E 25kHz :16KOF3E	
4FSK digital modulation	12.5kHz data: 7K60F1D & 7K60FXD 12.5kHz audio: 7K60F1E & 7K60FXE 12.5kHz data & audio: 7K60F1W	
Digital Vocoder	AMBE+2™	
Digital Agreement	ETSI-TS102 361-1、-2、-3	

Transmitter

Items	UHF	VHF
Frequency Range	400-480MHz	136-174MHz
Channel Spacing	12.5kHz/25kHz	Analog
Output Power	High Power: 10W	Low Power: 3W
FM modulation Restriction	±2.5dB@12.5kHz / ±5.0dB@25kHz	
FM Hum & Noise	-40dB@12.5kHz / -45dB@25kHz	
Conducted/Radiated Emission	-36dBm < 1GHz / -30dBm > 1GHz	
Adjacent Channel Selectivity	-60dB@12.5kHz / -65dB@25kHz	
Audio Response	+1、-3dB	
Audio Distortion	3%	
FM modulation	12.5kHz :11KOF3E 25kHz :16KOF3E	
4FSK digital modulation	12.5kHz data: 7K60F1D & 7K60FXD 12.5kHz audio: 7K60F1E & 7K60FXE 12.5kHz data & audio: 7K60F1W	
Digital Vocoder	AMBE+2™	
Digital Agreement	ETSI-TS102 361-1、-2、-3	