

QDR-50SFR

SIMPLEX FREQUENCY REPEATER

FEATURES

- ETSI TDMA DMR Protocol
- Built-in Power Supply
- · No Duplexer Required
- Base Radio Configuration Analogue/Digital
- Standby Current Draw 320mAmp on 13.8V
- Utilising Time Slot 1 and Time Slot 2 on Simplex Enabling Repeater Functionality



APPLICATIONS

- Transportation
- Industry
- Emergency Services
- Tunnel Communication
- Prison Communication
- Disaster Rescue
- Hotels
- Shopping Centres
- Airport Communication
- Sports Event
- Basement Coverage
- Building Coverage

GENERAL SPECIFICATIONS

Frequency VHF: 136-174MHz / UHF: 400-470MHz /

UHF: 450-520MHz

Number of Zones 100 **Channel Capacity** 1600

Channel Spacing 12.5KHz/25KHz

Working Method Semi-duplex or simplex relay

Operating Voltage DC 13.8V (±20%);

AC 100-240V

Standby Current Draw 320mAmp Frequency Stability ±0.5ppm Antenna Impedance 50Ω

Dimensions 282mm x 241mm x 56mm 3.2kg (without battery) Weight

TRANSMITTER

High: 20W Low: 5W **Output Power** 4FSK Digital Modulation Only data:7K60FX

Data and voice: 7K60FXE

FM Modulation 12.5KHz: 8K50F3E;

25KHz: 16K ¢ F3E

Modulation Limitation ±2.5KHz@12.5KHz;

±5.0KHz@25KHz

FM Modulation -40dB@12.5 KHz, -45dB@25KHz

Emission Spurious -36dBm≤1GHz/-30dBm≥1GHz Adjacent Channel Power ≤-60dB/12.5KHz,≤-70dB/25KHz

Frequency Response +1/-3dB Rated Audio Distortion ≤3%

Digital Speech Coder AMBE+2TM

RECEIVER

Digital Sensitivity 5% BER:0.225uV 0.225uV (12dB SINAD) **Analog Sensitivity**

≥65dB Intermodulation

Adjacent Channel Selectivity ≥60dB/12.5KHz, ≥70dB/25KHz

≥70dB **Spurious Suppression**

-40dB@12.25KHz, -45dB@25KHz **FM Noise**

+1/-3dB Frequency Response

3W (speaker) Rated Audio Output Power 3% (typical) **Audio Distortion** -57dBm **Conducted Spurs**

ENVIRONMENTAL INDICATORS

Range of Working -30 ~ +60°C

Temperature

Storage Temperature -40 ~+85°C

Range

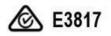
Moisture Proof MIL-STD-810 C/D/E/F/G

standard

Shock and Vibration MIL-STD-810 C/D/E/F/G

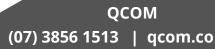
standard

- All specifications are subject to change without notice due to continuous development
- Complies with Australia / New Zealand RF standards









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QDR-50SFR FEATURES

Light Weight, Super Portable Design

Only a quarter size of regular repeater, 3.2kg light weight.

Increase Communication Distance

Unlike traditional repeaters, the QDR-50SFR provides 5-20W of output power without Tx power loss through the duplexer, and the improved Rx sensitivity ensures communication over greater distances.

Easy Installation

QCOM provides an easy-to-install wall bracket for the QDR-50SFR. Repeater requires external antenna only, no duplexer needed.

Support Single Frequency Repeater Mode and Save Frequency Resources

Only a digital simplex frequency is required to operate and no need to apply for duplex frequencies as in the case of normal repeater.

Support Base Station Mode

The QDR-50SFR supports a fist microphone as an optional accessory to support base station operation

With Temperature Power Control to Achieve Super Stability

When the repeater temperature reaches 40 degrees, the built-in fan will automatically turn on. When the repeater temperature reaches 70 degrees, the power will automatically be reduced. Once the temperature decreases, the repeater will revert back to high power. This ensures high reliability of QDR-50SFR.

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QDR-50SFR FEATURES

Support Voice Encryption and Authentication

The QDR-50SFR supports fixed key digital encryption technology, as well as authentication with QCOM encryption protocol. These features can improve and prevent interference and ensure the information is secured during communication.

2.0 Inch HD Large Screen Display

Using 2.0 inch high-definition full-view IPS screen, the display is clear and visible even in sunlight.

1600 Channels, 100 Areas Supported

Using large-capacity memory unit, 1600 channels can be restored, 100 zones to meet the needs of different users.

Data and Audio Signal Transmit Simultaneously

QCOM has developed the digital simultaneous interpretation function for professional users. During the communication, it supports simultaneous data and audio signal transmission.

Signal Adaptation

In the single frequency repeater mode, the terminal adopts an adaptive protocol to receive the transferred signal or the terminal's signal automatically.

Individual Call and Group Call Supported

Support individual calls and groups calls.

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QDR-50SFR ACCESSORIES

INCLUDED IN THE BOX







DC Power Cable



Programming Cable



Wall Panel