

SRB250 RAPID DEPLOYMENT REPEATER

simoco

The Simoco SRB250 is a transportable rapid deployment repeater that is designed to provide radio coverage to a critical incident, emergency situation or extends existing Public Safety systems, either analogue or APCO Digital P25. It provides deployable "on demand" coverage for vehicle and portable radio users in VHF or UHF. It is an ideal solution to keep public safety and government agencies connected.



Features

- Ruggedised P25 repeater
- Rapid deployment
- P25 transparent repeat function, repeats encryption intact, regenerates P25 frames
- LiFePO₄ (LFP) batteries for lightweight endurance and optimum voltage for radio modules
- Inbuilt duplexer
- Simple deploy and repeat mode (single button, closed box)
- High duty cycle operation with open lid, generously heat sunk power amplifier
- 25 Watt transmit power
- Battery state of charge LED indicators
- Customisations available
- Environmentally protected
- -20 to +60 degrees operation
- Inbuilt AC mains battery charger
- Link into a GRN and integration with other digital operators or systems

Optional features

- External LiFePO₄ (LFP) 60 Amp Hour battery pack in ruggedised case
- Link Radio in ruggedised field enclosure
- Case colours and custom labeling (subject to availability)



Secure. Reliable. Adaptive.

General Specification

Frequency Bands	AC (136-174 MHz) TU (400-480 MHz) UW (440-520 MHz)
Channel Stability	<1.5 ppm
Channel Spacing	12.5 kHz
Zones/Channels	40 Zones/1,500 Channels
Dimensions (LxWxD)	502 x 401 x 188 mm
Weight	14 kg
Power Source	Internal batteries Optional external battery box Option external power supply
Internal Batteries	1 or 2 LiFePO ₄ 12.8 V DC 7.5 Ah
Internal Battery Life (90% Stby 10% Tx)	5 W Tx: 22 Hours 25 W Tx: 14 Hours
Internal Charger	Single battery: 90% charge <2hours Dual battery: 90% charge <4 hours (from fully discharged)
Conformance	AS4295, FCC, IC
Environmental Protection	IP55
Operating Temperature	-20° C to +60° C operating

P25 Operation

- Transparent P25 digital repeater
- DES OFB and AES 256 Encryption*
- Encrypted repeat or local encrypt/decrypt in repeater

Transmitter Specification

Duty Cycle	25 W (lid open): 45 mins Tx, 15mins Stby @ 25° C 25 W (lid closed): 30 mins Tx, 30 mins Stby @ 25 °C
Hum and Noise	>40 dB
Modulation	C4FM, Analogue FM
Transmitter Power	3 levels programmable 1-25 W
Transmit Rise Time	<25 ms

Receiver Specification

Audio Output	4 W @ <5% distortion
Blocking	>95 dB at +/-1 MHz
Hum and Noise	>40 dB
Intermodulation	>70 dB
Selectivity	>65 dB
Sensitivity	<0.3 V for 5% BER

Internal Duplexer Specification

Insertion Loss	<1.5dB (typical)
Tx/Rx Split	VHF: 4.7-7 MHz UHF: 5.2-10 MHz
Antenna Connector	Type N

*Encryption subject to export controls

