



## SRB250

### P25 Rapid Deployment Repeater

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 analog 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

- ▶ Ruggedized P25 repeater
- ▶ Rapid deployment
- ▶ P25 transparent repeat function, repeats encryption intact, regenerates P25 frames
- ▶ LiFePO<sub>4</sub> (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 sinked power amplifier
- ▶ 25 Watt transmit power
- ▶ Battery state of charge LED indicators
- ▶ Customizations 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 LiFePO<sub>4</sub> (LFP) 72 Amp Hour battery pack in ruggedized case
- ▶ Link Radio in ruggedized field enclosure
- ▶ Case colors and custom labeling (subject to availability)
- ▶ Local microphone

## General Specification

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

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

## Receiver Specification

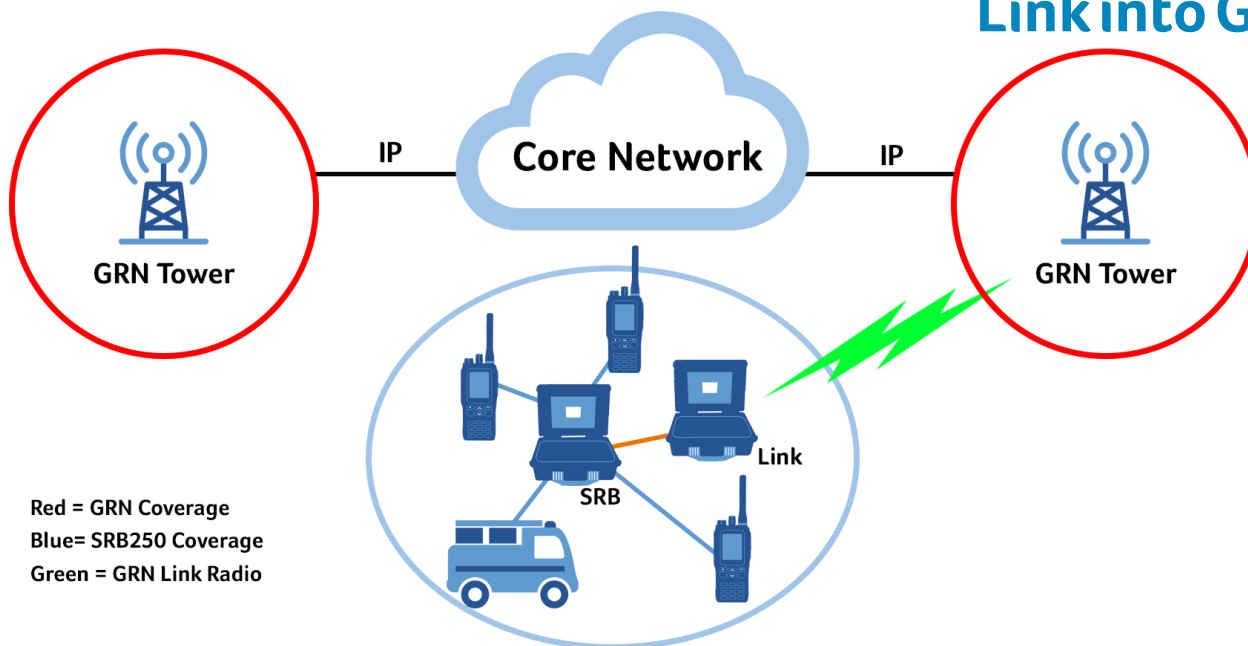
<b>Audio Output</b>	4 W @ <5% distortion
<b>Blocking</b>	>95 dB at +/-1 MHz
<b>Hum and Noise</b>	>40 dB
<b>Intermodulation</b>	>70 dB
<b>Selectivity</b>	>65 dB
<b>Sensitivity</b>	<0.3 µV for 5% BER

## Internal Duplexer Specification

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

\*Encryption subject to export controls

## Link into GRN



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