



# SFFR-6 Tactical Repeater

Analog and P25 conventional repeater for rapid deployment in standalone or network modes.



## Overview

The SFFR-6 is a highly portable Analog and P25 Conventional repeater that can be rapidly deployed to provide instant local or networked radio communication solutions.

Nicknamed the “GoBox,” the SFFR-6 is about the size of a lunch box and weighs in at just 9Kgs with batteries fitted. Designed to meet IP67 standards, the GoBox can withstand the harshest operating environments.

Capable of delivering between 1W and 15W of output power, the GoBox can run for over 14 hours at a 20% transmit duty cycle at max power using its internal battery source or powered indefinitely from an AC or DC power source. When powered by either AC or DC supplies, the GoBox also acts as a 2 bay battery charger eliminating the need to carry separate battery charging devices.

The GoBox comes standard with a high performance internal and interchangeable duplexer as standard. Using smart sense technology, the GoBox can recognize and reconfigure itself without any user intervention on duplexer installation.

The GoBox supports up to 50 operational profiles and programming is accomplished using an Ethernet cable and a web browser eliminating the need for specialized programming cables and software.

## Feature Summary

- VHF and UHF models available
- 1W-15W software controlled intelligent power output
- Internal and interchangeable smart duplexer for single antenna operation and auto configuration
- External duplexer option with separate Tx and Rx connectors available
- Universal AC or DC external power options
- 2 high performance, hot swappable internal lithium ion batteries
- Built in battery charger when external power applied
- Inbuilt Ethernet 10/100 Base-T network interface for configuration and networkability
- WiFi, 3G/4G and Satellite backhaul options available
- Rugged IP-67 rated connectors and housing
- Local status indicators and backlit LCD display
- Modular design with field replaceable components.
- Programmable and field selectable mission profiles (transmit power, NAC, CTCSS, DCS, local repeat, network) via rotary dial
- Software upgradeable to support road mapped features such as, pin code lock, tamper detect, over the air battery low notification, scheduled wake up/sleep, automatic transmit and receiver

The GoBox can also seamlessly interface to other networked communications infrastructure and even other GoBox's using its built in Ethernet port.

## Application Notes

### Temporary Network Coverage

The GoBox can be deployed to provide temporary extended network coverage at an event, providing immediate on-site repeater capability for subscribers, while also supporting interoperability with other

fleets of analog or digital users if enabled.

This temporary network coverage can be enhanced by networking the Go Box into broader fixed radio networks, or to a command and control center located nearby or on the other side of the world.

The GoBox is also compatible with Ethernet devices such as 3G/4G, Satellite or WiFi devices to provide additional network connectivity options.

## Underground Applications

Radio coverage into shadowed areas such as tunnels, subway platforms, utility ducts, sub stations and shopping centers can be a challenging safety and communications problem.

The Go Box can be easily deployed in environments to provide radio coverage in hard to reach places.

Self-powered, the Go Box can provide hours of standalone operation until a permanent power source can be supplied, or a field swappable battery module is replaced.

Tactical connectors and switches make the GoBox easy to setup in dark and unforgiving environments.



## Detailed Specifications

### RF Performance

- 1W - 15W output power
- 136-174MHz (VHF Model)
- 380-520MHz (UHF Model)
- -117dBm Receiver Sensitivity
- 12.5 kHz channel spacing
- <1% Modulation Fidelity
- Frequency Accuracy +/- 1.0ppm
- Internal notch type single antenna duplexer with a 4.5MHz minimum split

### Certifications

- FCC Part 15B, Part 90
- Industry Canada RSS119

### Functional Specifications

- P25 Conventional support
- Analog with CTCSS/DCS support
- Standalone and Network modes
- Modular design with field swappable duplexer, power amplifier, radio and control modules
- Inbuilt Web UI for configuration and monitoring
- 50 field selectable profiles
- Backlit LCD Status Window and RF Indicator LEDs

### Electrical Specifications

- 100 - 250 VAC
- 10.8 - 15.6 VDC / 10Amps
- 2 x Lithium Ion 11.25V 8850mAh can provide 14 hours at 20% DC at 15W

### Physical Specifications

- 259mm (D) x 216mm (W) x 198mm (H) (10.2in (D) x 8.5in (W) x 7.8in (H))
- 9.0 kgs (19.8 lbs)
- Aluminum Alloy External Casing
- IP67 rated housing and connectors
- -20C to 60C operation

## Related Product Family

### Etherstack's All-IP P25 Core Network

Etherstack is a world leader in P25 solutions and Etherstack's All-IP P25 soft-switching core is a world leading product.

Etherstack's All-IP P25 soft-switching core can deliver a complete, cost effective and robust fault tolerant voice and data solution for networks of any size.

Etherstack's core network solution can deliver voice and data capabilities for P25 conventional and trunked networks and can even support combinations of analog, conventional and trunked channels within the one network topology.

Etherstack's core network is also P25 ISSI and CSSI compliant ensuring interconnectivity between other manufacturers network cores such as Motorola, Harris, TAIT and Cassidian and console and digital voice recorder equipment suppliers such as CISCO, Exelis, Zetron, Pantel, Mindshare and Avtec.

### Etherstack's Analog to P25 Base Station Converter

Etherstack's P25 Channel Controller can extend the life of analog base stations by enabling them to become P25 digital base stations.

Etherstack's P25CC can connect to base stations from Motorola, Icom, TAIT, Codan, Kenwood, Simoco, Harris and Spectra Engineering.

This product can realize significant cost savings when upgrading existing analog networks to P25.

### Etherstack's P25 over LTE solution

Etherstack's iPhone and Android P25 over LTE solution or LTE25 for short is taking the industry by storm.

Etherstack's LTE25 solution stands above its competition as the only solution offering native P25 vocoder and encryption capabilities on the end mobile device without the need for any gateway or

translation service.

This architecture ensures the quickest call setup times and provides end to end encryption to uphold the highest levels of security.

LTE25 has been developed with all users in mind and provides the highest degrees of configuration to address every users needs.

The solution can run standalone providing P25 services to any LTE device anywhere in the world or the solution can be connected to existing P25 core infrastructure so calls can be made to traditional P25 radios.

Using Etherstack's family of core network products, you can even make calls to analog, P25 conventional and trunked users simultaneously from any LTE device.

Etherstack's LTE25 solution is paving the future of radio systems and interoperability.