

Heavy-Duty UHF Radio



- Configurable output power of up to 35 Watts
- Wide and tunable 70 MHz (403-473 MHz) operating range
- User-selectable channel spacing (12.5, 20 or 25 kHz)
- Compatible with existing Topcon and 3rd party radio products such as Satel, Trimble, and Pacific Crest rover radios
- IP67 rating to withstand harsh environments
- Automatic prevention of overheating
- Multi-function LCD user interface

Heavy-duty and Reliable

The SRL-35 is an all-weather UHF base radio with configurable high power output (up to 35 W¹) and a full 70 MHz tuning range. Designed for easy operation in demanding field conditions, the reinforced casing and connectors are fully waterproof and secure against dust (IP67). In addition to flexible output power and a wide tuning range, the SRL-35's channel spacing can set to 12.5, 20 or 25 kHz with complementary protocol support to satisfy high-efficiency narrowbanding² requirements. The unit's weather-proof LCD display clearly indicates the current operating status, and the integrated keypad allows direct configuration of the current operating channel, power level, and radio protocols. Interoperability is provided for several 3rd party radios protocols including Satel, PDL, and TrimTalk³ formats.

Dependable and Powerful

The SRL-35 uses a Forward Error Correction (FEC) approach which ensures dependable communication links and a minimum of data loss. At full power, communication distances of up to 80km can be achieved in good conditions. The SRL-35 can also function as a repeater using a second SRL-35 and doubling your operating range.

1 25W limited output power version is available as an order option for geographical areas where regulatory restriction on output power applies

2 On January 1, 2013, all public safety and business industrial land mobile radio systems operating in UHF radio bands in the US must cease operating using older 25 kHz wideband technology, and begin operating using at least 12.5 kHz efficiency technology

3 Use of PDL and Satel protocols is recommended in applications where possible. Compatibility with TrimTalk is subject to some restrictions

4 The output power is automatically decreased when necessary to prevent overheating

5 Depends on receiver settings

6 $\geq +12$ Vdc @ 35 W output power

SPECIFICATIONS

Transceiver

Frequency Range	403 - 473 MHz
Tuning Range	70 MHz
Channel Spacing	12.5 / 20 / 25 kHz (SW selectable)
Frequency Error Tolerance	< 1kHz
Type of Emission	F1D
Communication Mode	Half-Duplex

Transmitter

Carrier Power	10, 20, 25, or 35W / 50 ohm (default) 5, 10, 20 or 25W / 50 ohm (option ¹)
Carrier Power Stability	+2 dB / -3 dB
TX Duty Cycle ⁴	100% (22°C / 35°C) 40% 35W 20 min / 13 min No limit 10W No limit / 50 min No limit

Receiver

Sensitivity	< -114 dBm (BER < 10 E-3) ⁵
Co-channel Rejection	> -12 dB
Adjacent Channel Selectivity	> 47 dB @12.5 kHz / > 52 dB @ 25 kHz
Intermodulation Attenuation	> 60 dB
Spurious Radiation	< 2 nW

Data Modem

Interface	RS-232
Interface Connector	IP67, 8-pin ODU
Data Speed of RS Interface	300 - 38400 bps
Data Speed of Radio Interface	19200 bps (25 kHz) / 9600 bps (12.5 / 20 kHz)
Data Format	Asynchronous RS-232
Radio Protocols ³	Satel / PDL / TrimTalk

Power and Electrical

Power Consumption (average)	1.8W typical (Receive) 120W typical (Transmit 35W output power) 100W typical (Transmit 25W output power) 0.4W typical (Sleep State)
Operating Voltage ⁶	+9 to +16 VDC / 4-pin ODU MINI-Snap Size 1 (feeding)

Physical

Dimensions	189 x 138 x 71mm (with connectors) (h x w x d)
Weight	1.42kg
Antenna Connector	TNC, 50 ohm, female
Enclosure	Aluminium

Environmental

Temperature Range	Operating: -25°C to +55°C, -40°C to +75°C (absolute min / max) Storage: -40°C to +85°C
Waterproof / Dustproof Rating	IP67 (NEMA 6)



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