

StellarWavez SC582

Digital Portable Two-Way Radio

A professional portable two-way radio engineered for dependable and efficient voice communications across a variety of environments. Combining rugged durability with superior audio clarity, the feature rich SC582 ensures comfortable handling and reliable operation during continuous use.



Highlights

Crisp, clear audio

SC582 ensures clear voice transmission in any environment with AI-driven noise cancellation that suppresses feedback and filters ambient noise for optimal audio clarity.

Versatile Type-C

The universal Type-C port lets you use your smartphone's USB cable to charge, program, or upgrade the radio.

Rugged reliability

SC582 is IP67 rated and compliant with MIL-STD-810H military standards for protection against dust, water, vibrations, 1.5-meter drops, extreme temperatures, and more.

Extend the distance

With 0.18 μ V (-122 dBm) sensitivity, the SC582 delivers outstanding coverage and maintains reliable communication even in weak signal areas.

Easier to use

SC582 features dual knobs for volume and channel, a U-slot for easy belt clip attachment, and an enlarged LED for quick status checks.

Track your device

Location tracking is vital for safety, especially in emergencies. With GPS, the SC582 automatically sends location updates to dispatchers, enabling quick response and rescue.

Features

Work Mode

- Digital Conventional
- Analog Conventional

Voice Services

- Private Call
- Group Call
- All Call
- Emergency Call
- Time-out Timer

Connectivity

- Type-C Port
- GPS

Security

- Emergency Alarm
- Lone Worker
- Authentication
- Basic Encryption
- Radio Disable/Enable

Special Services

- Priority Interrupt
- Priority Call
- Mixed Channel
- Voice Buffer

Supplementary Services

- Programmable Keys
- Roam
- Remote Monitor
- Radio Check
- Voice Broadcast
- Scan
- RRS

Specifications

General	
Frequency Range	UHF 400-470 MHz
Channel Capacity	256
Zone Capacity	16
Channel Spacing	12.5 kHz/20 kHz/25 kHz
Operating Voltage	7.4 V (rated)
Battery	1500 mAh
Battery Life (5/5/90 Duty Cycle, High TX Power)	15h (GPS OFF); 13h (GPS ON)
Frequency Stability	±0.5 ppm
Antenna Impedance	50 Ω
Dimensions(HxWxD) mm	119 mm x 55 mm x 30.5 mm
Weight	265g
Receiver	
Sensitivity(Analog)	0.18 μV (12 dB SINAD); 0.16 μV (Typical) (12 dB SINAD);
Sensitivity(Digital)	0.18 μV/BER5%
Adjacent Channel Selectivity	TIA-603: 60 dB@12.5 kHz / 70 dB@20/25 kHz; ETSI: 60 dB@12.5 kHz / 70 dB@20/25 kHz
Intermodulation	TIA-603: 70 dB@12.5/20/25 kHz; ETSI: 65 dB@12.5/20/25 kHz
Spurious Response Rejection	TIA-603: 70 dB@12.5/20/25 kHz; ETSI: 70 dB@12.5/20/25 kHz
Blocking	TIA-603: 80 dB; ETSI: 84 dB
Hum&Noise	40 dB@12.5 kHz; 43 dB@20 kHz; 45 dB@25 kHz
Rated Audio Power Output	0.5 W
Rated Audio Distortion	≤3%
Audio Response	+1~3 dB
Conducted Spurious Emission	<-57 dBm

Transmitter	
RF Power Output	UHF: 4W/1W;
FM Modulation	11K0F3E@12.5 kHz; 14K0F3E@20 kHz; 16K0F3E@25 kHz
4FSK Digital Modulation	12.5 kHz data only: 7K60FXD; 12.5 kHz data and voice: 7K60FXW
Conducted/Radiated Emission	-36 dBm<1 GHz; -30 dBm>1 GHz
Modulation Limiting	±2.5 kHz@12.5 kHz; ±4.0 kHz@20 kHz; ±5.0 kHz@25 kHz
FM Hum&Noise	40 dB@12.5 kHz; 43 dB@20 kHz; 45 dB@25 kHz
Adjacent Channel Power	60 dB@12.5 kHz; 70 dB@20/25 kHz
Audio Distortion	≤3%
Digital Vocoder Type	AMBE+2™/SELP
Hot Start (Time to First Fix)	<10 seconds
Environmental	
Operating Temperature	-30 °C to +60 °C (Radio only - Battery -20 °C)
Storage Temperature	-40 °C to +85 °C
ESD	IEC 61000-4-2 (Level 4) ±8 kV (contact); ±15 kV (air)
Dust & Water Protection	IEC60529-IP67
Humidity	MIL-STD-810H
Vibration, Drop & Shock	MIL-STD-810H
GPS Specifications	
Horizontal Position Accuracy	<5 m
Cold Start (Time to First Fix)	<1 minute
Hot Start (Time to First Fix)	<10 seconds
Note	Accuracy Specs are for long-term tracking (95th percentile values > 5 satellites visible at a nominal -130 dBm signal strength)

StellarWavez™

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