

SEA 235

150W HF/SSB Digital Radiotelephone



The SEA 235 is the first MF/HF SSB radiotelephone to utilize Digital Signal Processing (DSP) technology as its fundamental architecture.

- DSP end-user benefits include:
 - Digital transmitter provides more talk power than radiotelephones with equal power ratings
 - Superior gain control (AGC) provides virtually error free transition for voice and data
 - Clean clear audio, enhanced clarity and reception
 - Can receive future enhancements and improvements through software upgrades
 - Uniquely flexible application filters (sitor, telex, modems, etc.) configurable through software
 - Increased reliability over analog filters
- E-mail ready
- Amateur bands with "HAM" operating system built-in
- Frequently used channels are pre-programmed from factory using alpha-numeric names for easy recall
- True AM receiver for clear undistorted reception of AM frequencies
- Large easy to read LCD
- Backlit silicone keypad
- Interfaces with SEA 1612C automatic antenna tuner
- Interfaces for PACTOR II modems and ALE Controllers

The SEA 235 is an MF/HF SSB radiotelephone designed and built on a fully digital platform. This revolutionary radio is unequalled in performance, price, reliability, and flexibility for use in numerous special applications.

Digital architecture makes the SEA 235 more reliable and also smaller and lighter than most MF/HF Single Side Band radios in the Marine marketplace.

The SEA 235 design has proven to be extremely reliable and capable of sustaining high performance communications in harsh environments and under extreme signal conditions.

Flexible SEABUSSII interconnection supports multiple devices, balanced/unbalanced audio lines, NMEA I/O, and simplifies PACTORII modem and ALE controller interfaces.

SEA has consistently provided the Maritime market with practically priced, fully synthesized HF/MF SSB radiotelephones for more than 30 years.

SEA MF/HF SSB radiotelephones have consistently won National Marine Electronics Association's (NMEA) awards for excellence in SSB radiotelephones.

Specifications:

GENERAL:

Compliance:

FCC Parts 80, 87, 90

FCC ID:

BZ6SEA235

Frequency Range:

Tx: 1.6 to 30 MHz
Rx: .49 to 30 MHz

Frequency Resolution:

Tx: 100 Hz
Rx: 10 Hz

Frequency Stability:

± 10 Hz (-30° +60°C)

Operating Modes:

J3E (USB) LSB, H3E, J2B (AFSK) R3E

Supply Voltages:

13.6 Vdc ± 15%
(11.6 – 15.6 V)

Current Drain:

Tx 17 Amps (two-tone)
Tx 11 Amps (voice)
Rx 1 Amp (stand-by)
Rx 1.5 Amps (full-audio)

Operating Temperature Range:

-30°C to 60°C

Antenna Impedance:

50 ohms

Channels:

1176 Total
200 Programmable
242 ITU SSB Duplex
72 ITU SSB Simplex
662 ITU FSK Duplex

Scan Channels:

200

Display:

LCD
3.2" x 1.85" (W x H)
(81.2mm x 46.9mm)

Metering:

S-Meter

Computer I/O:

RS-232 Serial

RECEIVER:

Frequency Range:

490 KHz to 30 MHz

Frequency Resolution:

10 Hz

Intermediate

Frequencies:

45 MHz, 455 KHz

Sensitivity:

≤ 1.0 uV for 12 dB SINAD

Adjacent Channel

Selectivity:

>60db at -1 KHz

Blocking:

At max. Sensitivity: Better than 70 dB at +60dB/uV:
Better than 100 dB

Cross Modulation:

Better than 80 dB

Spurious Response:

Better than 70 dB

Spurious Emissions:

Less than 1 nW

Intermodulation:

-80 dB

AGC:

J3E, fast attack, slow release, ≤ 10 dB audio level change from 10 uV to 100 mV input

Clarifier:

+/-200 Hz in 10 Hz steps

Squelch:

Voice controlled, opens at SINAD >5dB

Audio Output:

4 Watt @ 4 ohms, less than 10% distortion

TRANSMITTER:

Output Power:

150 Watt into 50 ohms

Power Reduction:

-3dB/-6dB from PEP

Intermodulation:

Better than -34 dB below PEP

Spurious Emissions:

Better than -65 dB below PEP

Carrier Suppression:

Better than 50 dB below PEP

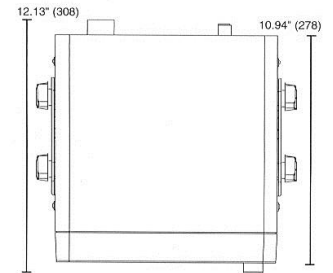
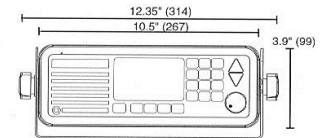
Undesired Sideband Suppression:

Better than 50 dB below PEP

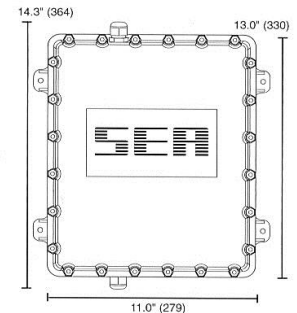
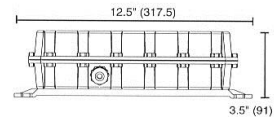
AF Bandwidth:

400 – 2500 Hz at -6 dB

Dimensions in. (mm)



Radio
9.1 lbs (4 kg.)



Antenna Tuner
4.5 lbs (2 kg.)

SEA COM CORPORATION

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