

# SEA 235

## 150W HF/SSB Digital Radiotelephone



The SEA 235 is one of the first MF/HF SSB radiotelephones with Digital Signal Processing (DSP) as its fundamental architecture.

- DSP end-user benefits include:
  - More talk power than radiotelephones with equal power ratings
  - Virtually error free transition for voice and data
  - Clear audio with enhanced clarity and reception
  - Receives future enhancements and improvements through software upgrades
  - Flexible application filters configured through software
  - Increased reliability over analog filters
  - Email and Data capability
- Amateur bands with HAM/MARS operations
- Frequently used channels are pre-programmed from factory using alpha-numeric names for easy recall
- True AM receiver for clear undistorted reception
- Large easy to read LCD & backlit silicone keypad
- Optional 2350 Remote Control Heads (up to 3)
- Interfaces with SEA 1612C automatic antenna tuner
- Interfaces to PACTOR II 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. It is 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 SEABUSS interconnection supports multiple devices, balanced/unbalanced audio lines, and simplifies PACTOR and ALE controller interfaces.

SEA has consistently provided competitively priced HF/MF SSB radiotelephones for more than 30 years. SEA MF/HF SSB radiotelephones have won numerous awards for excellence.

SEA COM CORP has a worldwide service network to support all of its products, ensuring backup support almost anywhere in the world your ship is operating.

To learn more about this model or other SEA products, contact your local Marine Electronics Dealer or call SEA COM CORP at (425) 771-2182, or email [sales@seacomcorp.com](mailto:sales@seacomcorp.com).

# SEA 235 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

Direct Entry

### 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

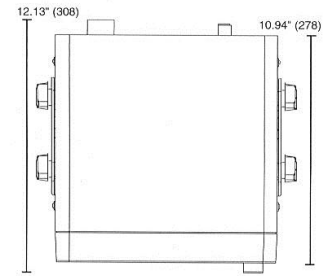
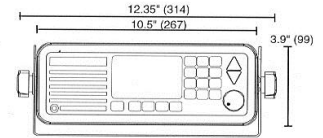
### Suppression:

Better than 50 dB below PEP

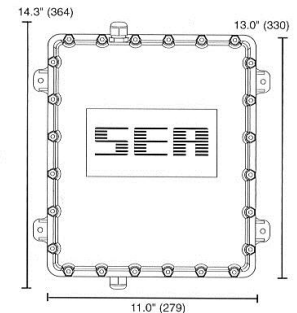
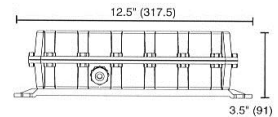
### AF Bandwidth:

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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