

# SEA 235

## 150W HF/SSB Digital Radiotelephone



- ▶▶ Very first MF/HF SSB radiotelephone utilizing 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 between voice and data
  - Clean clear audio with enhanced clarity and reception
  - Installed SEA 235s will receive future enhancements and improvements through software upgrades
  - Uniquely flexible with special application filters (sitor, telex, modems, etc.) configurable through software
  - Increased reliability over other radios that use analog filters
- ▶▶ E-mail ready
- ▶▶ Amateur bands with "ham" operating system built-in
- ▶▶ Most 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
- ▶▶ Newly designed "state of the art" automatic antenna tuner (SEA 1635)

At last, an 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.

Entering the digital age has allowed us, in the SEA 235, to introduce a radio which is 40% smaller and 33% lighter than any other singlesideband radio on the marine market.

SEA Inc. was the company that provided the marine marketplace with a practically-priced synthesized SSB radiotelephone over 17 years ago.

SEA SSB radiotelephones have consistently won the National Marine Electronics Association's (NMEA) award for excellence in SSB radiotelephone over the last 14 years.



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# SEA 235

## SPECIFICATIONS

### GENERAL

- Compliance**  
 FCC Parts 80, 87, 90
- FCC ID**  
 BZ6SEA235
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 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)
- 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

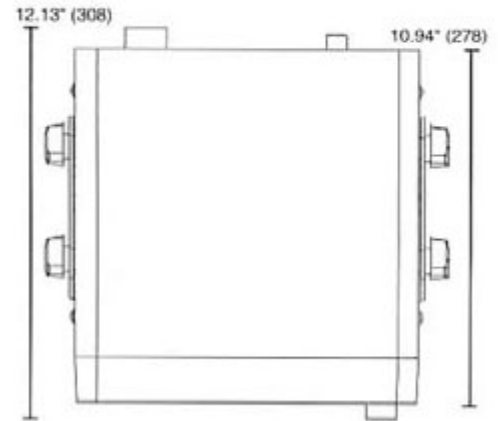
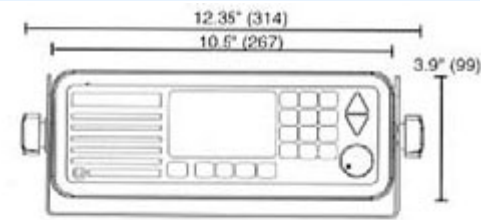
### RECEIVER

- 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 into 4 ohms at less than 10%  
 distortion

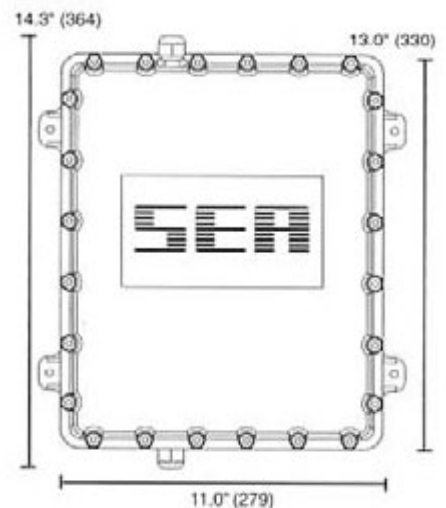
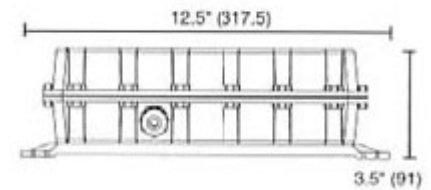
### TRANSMITTER

- 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.)