

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.

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

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:

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

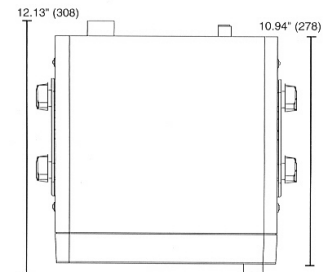
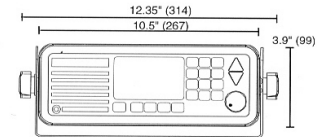
Undesired Sideband Suppression:

Better than 50 dB below PEP

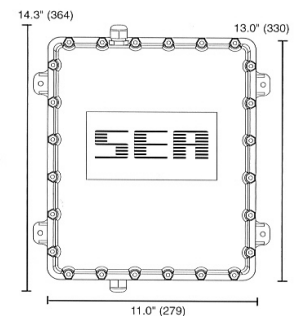
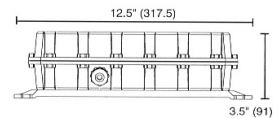
AF Bandwidth:

400 – 2500 Hz at -6 dB

Dimensions in. (mm)



Radio
9.1 lbs (4 kg.)



Antenna Tuner
4.5 lbs (2 kg.)



American technology that talks to the world.

7030 - 220th S.W., Mountlake Terrace, Washington 98043; (425) 771-2182; Fax: (425) 771-2650; www.sea-dmi.com