

SEA 235 R

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
 - Much higher reliability than than competitive radios using dated analog circuits
- ▶▶ 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)

The SEA 235R HF/SSB DSP radiotelephone is the latest addition to the SEA 235 product group. The SEA 235R offers all of the standard features of the SEA 235 in a versatile two-piece configuration consisting of the SEA 2350 remote controller, 2351 "black-box" transceiver, and SEA 1635 automatic antenna tuner.

The SEA 235R system allows for greater ease of installation in areas where space is at a premium. The compact SEA 2350 remote controller is less than three inches deep and may be mounted up to 300' from the SEA 2351 transceiver. Up to four SEA 2350 remote controllers may be included. An intercom function allows communications between controller locations.

SEA SSB radiotelephones have consistently won the National Marine Electronic Association's (NMEA) award for excellence in SSB radiotelephone over the last 16 years.

SEA 235 R

SPECIFICATIONS

GENERAL

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

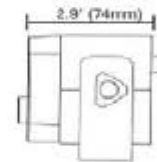
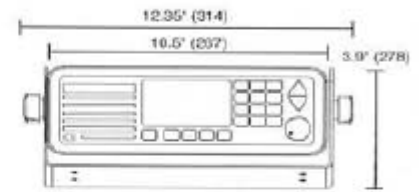
RECEIVER

- 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

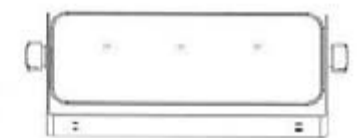
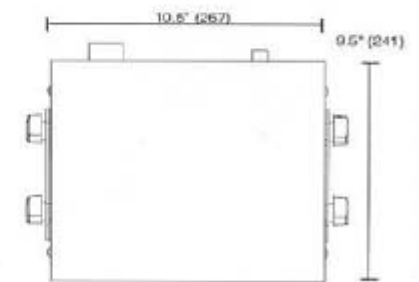
TRANSMITTER

- 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

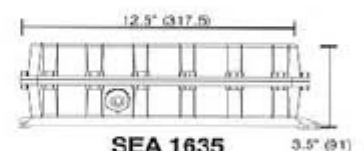
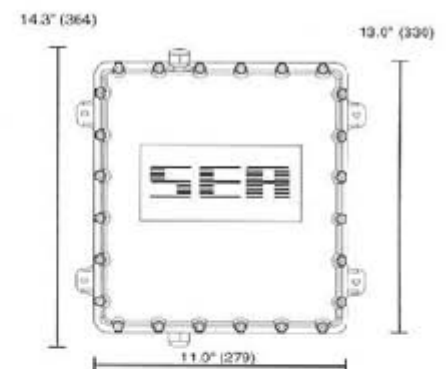
Dimensions in (mm)



**SEA 2350
Controller**
2.8 lbs (1.27 kg.)



**SEA 2351
Remote Transceiver**
7.0 lbs (3.18 kg.)



**SEA 1635
Antenna Tuner**
4.5 lbs (2 kg.)