

# System 600

100 Channel 100 W  
HF SSB Mobile Radio



The multi-purpose System 600 HF SSB radio is designed to fulfill Long-haul Land Mobile communication requirements. Though many radios can be adapted for more than one application, the System 600 is well-suited as a mobile or base station. Since the System 600 was envisioned as a multi-purpose radio from the beginning, the technology, engineering, and manufacturing is the foundation of solid, functional design. For military dispatches from remote outposts, staying in touch from an offshore drilling rig or lonely forestry lockout, and as a governmental emergency backup system, the multi-purpose System 600 is indispensable.



- Frequency Range:  
Receive: 50 kHz~30 MHz  
Transmit: 1.8~30 MHz
- 100 Watt RF Power Output
- MIL-STD 810 D/E
- Backlit Alphanumeric Display
- Unique Selective Calling Protocol
- Dual Watch
- PC Programmable
- Mobile/Base Station Operation



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## Specifications

General Specifications	System 600
	HF Single Sideband
Number of Channels	100 channels
Frequency Range	
Receive	50 kHz-30 MHz
Transmit	1.8-30 MHz
Frequency Synthesizer Step Resolution	10 Hz, 100 Hz, 1 kHz
Emission Modes	J3E (USB, LSB); A1A (CW); A3E (AM); H3E (2182 Mode only); J2B (USB, LSB)
Current Consumption	
Receive (No Signal)	1.2A
Transmit	20A
Ambient Temperature Range	-10°C to +50°C
Frequency Stability	± 10 ppm
RF Input-Output Impedance	50 ohms
Power Supply Voltage	13.8 VDC
Dimensions	11.3" x 9.6" x 4.1" (286 X 244 X 104 mm)
Weight	9.9 lb (4.5 kg)

Receiver Specifications	Measurements made per EIA standard
Circuit Type	Double Conversion Superheterodyne
Sensitivity (10 dB S/N)	
0.5-1.8 MHz: J2B/J3E/A1A	2 µV
0.5-1.8 MHz: A3E	8 µV
1.8-30 MHz: J2B/J3E/A1A	0.25 µV
1.8-30 MHz: A3E	1 µV
Adjacent Channel Selectivity (-6/-60 dB)	
J2B/J3E/A3E-Narrow	2.2 / 5 kHz
H3E Narrow/A1A-Wide	2.2 / 5 kHz
A1A Narrow	500 Hz / 1.2 kHz
A3E	6 kHz / 12 kHz
Clarifier Range	± 300 Hz
Image Rejection (1.8-30 MHz)	70 dB
IF Rejection (1.8-30 MHz)	60 dB
Conducted Radiation	-55 dBm
Spurious Response*	< 1mV
Audio Output	1.5 Watt into 4 ohms w/ <5% THD

Transmitter Specifications	Measurement made per EIA standard
Power Output	
J2B, J3E, A1A	100 Watts
A3E, H3E	25 Watt AM Carrier
Modulation Type	
SSB	Balanced Modulator, Filtered Carrier
AM	Low-Level (Early Stage)
Spurious Radiation	-40 dB
SSB Carrier Suppression	-40 dB
Undesired Sideband Suppression	50 dB @ 1.5 kHz Modulation Input
Spurious Response	-40 dB
SSB Audio Response	< -6 dB from 400-2600 Hz
Occupied Bandwidth	
A1A	< 0.5 kHz
J2B, J3E, H3E	< 3.0 kHz
A3E	< 6.0 kHz
3rd Order SSB IMD	-25 dB @ 100 W PEP (14 MHz)
Microphone Impedance	600 ohms

\* Except 5.2428 MHz, 8.2150 MHz, 10.4857 MHz, and 19.6610 MHz

### The Vertex Warranty\*

Vertex Radio Communications equipment includes an industry-leading 3-Year Limited Warranty on all transceivers and a 1-Year Warranty on all accessory items.

\*U.S. and Canada

## Accessories & Options

- FC-800 Remote Automatic Antenna Tuner
- FIF-232C CAT System Computer Interface
- FL-7000 500 Watt Linear Amplifier
- FP-1025A/1030A AC Power Supply
- FVP-24 Encryption Unit  
(Voice Inversion/Rolling Code)
- MD-100A8X Desktop Microphone
- MMB-20 Mobile Mounting Bracket
- SP-7 Mobile Speaker
- SP-8 External Speaker
- TCXO-4 High Stability Reference Oscillator  
± 2.0 ppm
- YA-007 HF Mobile Antenna
- YA-30 HF Wide Band Antenna
- YH-77STA Lightweight Headphones



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