VX-1700

HF SSB Radios

SPECIFICATION SHEET – NORTH AMERICA

Long Haul Communications

The multi-purpose VX-1700 is designed to operate as a mobile radio or as a base station for long-haul land mobile communications. Operating modes include LSB/USB (J3E and J2B), AM (A3E) and CW (A1A), making the VX-1700 ideal for a wide variety of applications. Popular for use by cities and local government to support public safety and disaster response management.

Large Channel Capacity

The VX-1700 can store 200 channels arranged in five groups with the flexibility to have any number of channels per group. Each channel can be programmed with a 6-character alphanumeric description for quick and easy call management.

Automatic Link Establishment (ALE) Option

With the ALE-1 option installed, the VX-1700 Automatic Link Establishment feature selects the channel with the best LQA (Link Quality Analysis) score from the programmed channels automatically.

Flexible Calling Options

Includes six built-in call modes to support various communications:

- Selective Call (SELCALL) – place calls to an individual or group using assigned ID number for each transceiver for private calling
- Beacon Request Call – check signal quality between transceivers before placing a selective call to verify if a call can be placed
- Telephone Call (TELCALL) – place call through telephone interconnect service to expand contact to individuals via phone
- Message Call – send text messages (up to 64 characters) to another transceiver for expanded communication options
- Position Request Call – monitor position information of another transceiver when used as a mobile unit
- Position Send Call – transmit position information to another transceiver to notify others of current location.

Dual Watch Operation

Operate the VX-1700 radio on one channel while periodically monitoring the designated memory channel to ensure a call is not missed. Ideal for emergencies when important a call gets through to dispatch.

VX-1700

FACTORY WARRANTY 3 Year

The Vertex Standard Difference

Our number one goal is achieving superior customer satisfaction by delivering products and services that exceed your expectations. Vertex Standard radios are built to last and are backed by an industry-leading 3 year warranty.

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www.vertexstandard.com/lmr

Additional Features

- Four programmable keys
- Noise blanker
- CW Semi break-in
- CW Side tone function
- BCLO / BTLO and TOT Functions
- VOX

Accessories

- MH-31A8J: Dynamic hand microphone
- MD-12A8J: Desktop microphone
- MD-100A8X: Channel control desktop microphone
- FP-1030A: External power supply
- MLS-100: External speaker, 12 W
- MLS-200: Waterproof External speaker, 12 W
- ALE-1: Automatic link establishment unit
- FC-30: Antenna tuner (coaxial lines)
- FC-40: Antenna tuner (wire/whip antennas)
- YA-30: Broadband HF antenna 77 ft.
- YA-31: Broadband HF antenna 49 ft.
- YA-007FG: HF Multi-band mobile antenna (7 MHz – 30 MHz requires FC-40)
- MMB-89: One-touch mobile bracket

VX-1700 Specifications

General Specification

Frequency Range: RX TX	 30 kHz – 30.0000 MHz 1.600 – 30.0000 MHz
Number of Channels	200
Emission Type	A1A(CW); J3E(LSB/USB); A3E(AM); J2B (USB/LSB)
Power Supply Voltage	DC 13.8 V ±15%, negative ground
Frequency Synthesizer Steps	10 Hz, 100 Hz, 1 kHz
Frequency Stability	± 1 ppm (+14° F to +131° F / -10° C to +55° C) TYP
Current Consumption: RX (no signal) RX TX STBY	 1.0 A 1.5 A 22 A (125 W output) 25 mA
Operating Temperature Range	+14° F to +131° F (-10° C to +55° C)
Antenna Impedance	50 Ohms
Dimension (H x W x D)	3.9 x 9.5 x 11.2 inches (99 x 241 x 285 mm)
Weight (Approx.)	9.5 lbs (4.3 kg)

Receiver Specification: measured by TIA/EIA-603

Intermediate Frequency	1st: 45.274 MHz, 2nd: 24 MHz
Sensitivity (A1A/J2B/J3E/A3E: S/N 10 dB)	0.5 – 1.6 MHz: 1.41 µV (A1A/J2B/J3E); 8 µV (A3E) 1.6 – 30 MHz: 0.16 µV (A1A/J2B/J3E); 1 µV (A3E)
Squelch Sensitivity (A1A/J2B/J3E)	0.5 – 1.6 MHz: 2.5 µV 1.6 – 30 MHz: 2 µV
IF and Image Rejection	Better than 80 dB
Selectivity	A1A(W), J2B(W), J3E: > 2.2 kHz @ -6 dB; < 4.5 kHz @ -60 dB A1A(N), J2B(N): > 500 Hz @ -6 dB; < 2.0 kHz @ -60 dB A3E: > 6 kHz @ -6 dB; < 20 kHz @ -60 dB
Audio Output	2.2 W into 8 Ohms @ 10% THD
Audio Impedance	4 – 16 Ohms (8 Ohms Nominal)
Conducted Radiation	Less than 4000 µ µW

Transmitter Specification: measured by TIA/EIA-603

Output Power	125 Watts (A1A, J2B, J3E @ 1.6000 – 3.9999 MHz)* 100 Watts (A1A, J2B, J3E @ 4.0000 – 30.000 MHz) 31 Watts AM Carrier (A3E @ 1.6000 – 3.9999 MHz) 25 Watts AM Carrier (A3E @ 4.0000 – 30.000 MHz)
Duty Cycle	RX: TX = 4 min.: 1 min.
Modulation	J3E: PSN type modulator A3E: Low-level (early stage)
Spurious Radiation	Better than 56 dB (Harmonics)
J3E Carrier Suppression	Better than 50 dB below peak output
Undesired Sideband Suppression	Better than 60 dB below peak output
Spurious Emissions	56 dB
Audio Response (J3E)	Not more than 6 dB from 400 Hz – 2500 Hz
Occupied Bandwidth	A1A: less than 0.5 kHz J3E: less than 3.0 kHz A3E: less than 6.0 kHz
Microphone Impedance	200 – 10 k Ohms, (600 Ohms Nominal)

* 100 W when using FC-30

Applicable MIL-STD

	Methods/Procedures		
Standard	**MIL 810D**	**MIL 810E**	**MIL 810F**
Vibration	514.3 / I Cat. 10	514.4 / I Cat. 10	514.5 / I Cat. 20/24 Figure 514.5C-1
Shock	–	–	516.5 / I