

# VX-1700

## HF Mobile Radio

### SPECIFICATION SHEET

### Multi-Mode Mobile HF Radio

The multi-purpose 125 Watt 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.

#### 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

The VX-1700 provides six different built-in calling modes to support various communications requirements including SELCALL, TELCALL, Message Call (for text messages), Position Request Call, Position Send Call and Beacon Request Call to check signal quality.

#### 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 emergency management situations when it is important that a call gets through to dispatch.



VX-1700

241mm (W) x 99mm (H) x 285mm (D)



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## Additional Features

- Four programmable keys
- Noise blanker
- CW Semi break-in
- CW Side tone function
- VOX
- VFO Mode
- Field memory channel storage

## Accessories

- MD-12A8J: Desktop microphone
- MD-100A8X: Channel control desktop microphone
- FP-1030A: External power supply
- MLS-100: External speaker
- ALE-1: Automatic link establishment unit
- FC-30: Antenna tuner (coaxial lines)
- FC-40: Antenna tuner (wire/whip antennas)
- YA-30: Broadband HF antenna 23.4m
- YA-31: Broadband HF antenna 15m
- YA-007FG: HF Multi-band mobile antenna (7MHz to 30MHz requires FC-40)
- MMB-89: One-touch mobile bracket
- MHG-1: Carrying handle

## Option Board

- FVP-39: Variable split-band voice scrambler (FVP-24 compatible)

## VX-1700 Specifications

### General Specification

|                             |  |
|-----------------------------|--|
| Frequency Range             | RX: 30kHz – 30.0000MHz; TX: 1.600 – 30.0000MHz                           |
| Number of Channels          | 200  |
| Emission Type               | A1A(CW); J3E(LSB/USB); A3E(AM); J2B (USB/LSB)                            |
| Power Requirements          | DC 13.8V ±15%, negative ground   |
| Frequency Synthesizer Steps | 10Hz, 100Hz, 1kHz  |
| Frequency Stability         | ± 1ppm (-10°C to +55°C) TYP  |
| Current Consumption         | Standby: 25mA; RX, no signal: 1.0 A; RX: 1.5 A<br>TX: 24 A (125W output) |
| Operating Temperature Range | -10°C to +55°C   |
| Antenna Impedance           | 50 Ohms  |
| Dimension (W x H x D)       | 241mm x 99mm x 285mm   |
| Weight (Approx.)            | 4.3kg  |

### Receiver Specification

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

### Transmitter Specification

|                                |   |
|--------------------------------|---|
| Output Power                   | 125 Watts (A1A, J2B, J3E @ 1.6000 – 3.9999MHz)*<br>100 Watts (A1A, J2B, J3E @ 4.0000 – 30.0000MHz)<br>31 Watts AM Carrier (A3E @ 1.6000 – 3.9999MHz)<br>25 Watts AM Carrier (A3E @ 4.0000 – 30.0000MHz) |
| Duty Cycle                     | RX:TX = 4min. : 1min.   |
| Modulation                     | J3E: PSN type modulator<br>A3E: Low-level (early stage)   |
| Spurious Radiation             | -50dB (Harmonics)   |
| J3E Carrier Suppression        | Better than 50dB below peak output  |
| Undesired Sideband Suppression | Better than 60dB below peak output  |
| Audio Response (J3E)           | Not more than -6dB from 400Hz – 2500Hz  |
| Occupied Bandwidth             | A1A: less than 0.5kHz; J3E: less than 3.0kHz; A3E: less than 6.0kHz   |
| Microphone Impedance           | 200 – 10k Ohms, (600 Ohms Nominal)  |

\*100W when using FC-30

## Applicable MIL-STD

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

Specifications are subject to change without notice or obligation.

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