

# VX-1700

## HF Multi Mode Mobile Radio



- Frequency Coverage :
  - RX: 30 kHz ~ 30.0000 MHz in 10 Hz Steps
  - TX: 1.600 ~ 30.0000 MHz
- A1A (CW), J3E (LSB/USB), A3E (AM), J2B (USB/LSB), H3E (2.182 MHz Emergency Channel only)
- 200 Memory Channels (arranged in five banks)
- Alpha-Numeric Labeling of Memory Channels
- VFO Mode Capability
- ITU Marine Channel Installed
- One touch 2.182 MHz Emergency Channel Mode
- Power Output:
  - 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)
  - 31 Watts AM Carrier (H3E @2.182 MHz)
- Mobile Antenna (Optional)
- Selcall / Telcall Built-in
  - Selcall
  - Telcall
  - Message Call
  - Position Request Call
  - Position Send Call (with GPS receiver connected)
  - Beacon Request Call
- ALE Operation (requires optional ALE-1 unit)
- Dual Watch Operation
- External Automatic Antenna Tuner, FC-30 (Coax) and FC-40 (Wire) Available
- VOX
- Noise Blanker
- Dimmer Function
- CW Side Tone Function
- CW Semi-break-in
- Transcript® SSB Encryption Unit SC20-455 Available
- Field Memory Channel Storage
- PC Programmable
- MIL-STD 810D / E / F



The Vertex Standard VX-1700 is a low-cost, integrated HF communications transceiver designed for the worldwide Marine, Land Mobile, and Government markets.

The VX-1700 provides continuous receiver coverage from 30 kHz to 30.0000 MHz, and transmitter coverage as appropriate for the user's application. Operating modes provides J2B (USB or LSB), J3E (USB or LSB), A1A, A3E, and H3E (only on 2182 kHz in the Marine version), making the VX-1700 ideal for a wide variety of voice, telegraphy, and many data communication applications.

Advanced features of the Vertex Standard VX-1700 include 200 memory channels, arranged in five banks, keyboard frequency entry with frequency resolution to 10 Hz (100 Hz in Memory mode), and Alpha-Numeric labeling of Memory channels. For ease in programming fleet systems is provided. And the Selcall feature allows paging of a single transceiver or groups of transceivers by a dispatch center.

Available options include FP-1030A AC Power Supply, FC-40 Automatic External Antenna Tuner (for the 50 ohm unbalanced type), FC-40 Automatic External Antenna Tuner (for an end-fed random wire or long whip antenna), YA-30 Broadband Dipole Antenna, YA-007FG Mobile Antenna, MD-200A8X Desktop Microphone, MLS-100 External Speaker and the ALE-1 Automatic Link Establishment Unit which automatically selects the channel with the best LQA (Link Quality Analysis) score from the programmed channels.

### Rear Panel



### Accessories & Options



**FP-1030A**  
AC Power Supply



**FC-40**  
External Antenna Tuner  
(for Wire/Whip Antennas)



**MD-100A8X**  
Desktop Microphone



**FC-30**  
External Antenna Tuner  
(Coaxial Lines)



**MLS-100**  
External Speaker

Various accessories listed may not be available in some countries.

### Specifications

General Specifications			
Receiver Frequency Range	30 kHz ~ 30.0000 MHz		
Transmitter Frequency	1.600 ~ 30.0000 MHz		
Emission Modes	A1A (CW), J3E (LSB/USB), A3E (AM), J2B (USB/LSB), H3E (2.182 MHz Emergency Channel only)		
Frequency Synthesizer Steps	10 Hz, 100 Hz, 1 kHz		
Frequency Stability	±1 ppm (-10° C ~ +55° C) TYP		
Operating Temperature Range	-10° C ~ +55° C		
Antenna Impedance	50 Ohms		
Supply Voltage	13.8 Volts DC ±15%, negative ground		
Power Consumption	Standby	25 mA	
	Receive, no signal	1.0 A	
	Receive	1.5 A	
	Transmit	22 A (125 Watts output)	
Dimensions (WxHxD)	241 x 99 x 285 mm		
Weight (approx.)	4.3 kg		
Receiver Specifications			
Intermediate Frequencies	1st: 45.274 MHz, 2nd: 24 kHz		
Sensitivity (A1A/J2B/J3E/A3E: S/N 10 dB)	A1A/J2B/J3E		A3E/H3E
	0.5 ~ 1.6 MHz:	1.41 µV	8 µV
	1.6 ~ 30 MHz:	0.16 µV	1 µV
Squelch Sensitivity (A1A/J2B/J3E)	0.5 ~ 1.6 MHz: 2.5 µV		
	1.6 ~ 30 MHz: 2 µV		
IF Rejection	Better than 80 dB		
Image Rejection	Better than 80 dB		
Selectivity	-6 dB		-60 dB
	A1A(W), J2B(W), J3E	> 2.2 kHz	< 4.5 kHz
	A1A(N), J2B(N)	> 500 Hz	< 2.0 kHz
	A3E, H3E	> 6 kHz	< 20 kHz
Audio Output	2.2 Watts into 8 Ohms @ 10% THD		
Audio Output Impedance	4 ~ 16 Ohms (8 Ohms Nominal)		
Conducted Radiation	Less than 4000 µW		
Transmitter Specifications			
Power Output*1	125 Watts (A1A, J2B, J3E @ 1.6000 ~ 3.9999 MHz)**2		
	100 Watts (A1A, J2B, J3E @ 4.0000 ~ 30.0000 MHz)		
	31 Watts AM Carrier (A3E @ 1.6000 ~ 3.9999 MHz)		
	25 Watts AM Carrier (A3E @ 4.0000 ~ 30.0000 MHz)		
	31 Watts AM Carrier (H3E @ 2.182 MHz)		
Modulation Types	J3E, H3E: PSN type modulator		
	A3E: Low-level (early stage)		
Spurious Radiation	Better than -50 dB (Harmonics)		
	Better than -40 dB (Harmonics @ 1.6 ~ 1.8 MHz)		
J3E Carrier Suppression	Better than 50 dB below peak output		
Undesired Sideband Suppression	Better than 60 dB below peak output		
J3E Audio Response	Not more than -6 dB from 400 Hz ~ 2500 Hz		
Occupied Bandwidth	A1A: less than 0.5 kHz		
	J3E, H3E: less than 3.0 kHz		
	A3E: less than 6.0 kHz		
Microphone Impedance	200 ~ 10 k Ohms (600 Ohms Nominal)		

Specifications are subject to change without notice or obligation.

\*1 Duty Cycle RX : TX = 4 min : 1 min

\*\*2 100 Watts 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

**ALE-1** Automatic Link Establishment Unit  
**YA-30** Broadband HF Antenna  
**YA-007FG** HF Multi-Band Mobile Antenna for FC-40  
**MMB-89** One-Touch Mobile Bracket  
**MHG-1** Carrying Handle  
**CE77** Programming Software  
**CT-62** Programming Cable

**ISO9001:2000**  
  
 HENRY JOHNSON REGISTRARS, INC.  
**YAESU MUSEN CO., LTD**  
 ISO9001:2000 certification

**ISO14001:2004**  
  
 HENRY JOHNSON REGISTRARS, INC.  
**YAESU MUSEN CO., LTD**  
 ISO14001:2004 certification

## Vertex Standard

VERTEX STANDARD CO., LTD.

4-8-8 Nakameguro, Meguro-ku, Tokyo 153-8644, Japan

For our latest product news, visit us on the Internet:  
<http://www.vxstd.com>

VERTEX STANDARD <http://www.vertexstandard.com>

### US Headquarters

10900 Walker Street, Cypress, CA 90630, U.S.A.

Phone +1 714-827-7600

### YAESU EUROPE B.V.

P.O. Box 75525, 1118 ZN Schiphol, The Netherlands

Phone +31 20-5005270

### YAESU UK LTD.

Unit 12, Sun Valley Business Park, Winnall Close  
 Winchester, Hampshire, SO23 0LB, U.K.

Phone +44 196 286 6677

### VERTEX STANDARD HK LTD.

Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,  
 Kwun Tong, Kowloon, Hong Kong

Phone +852 2732 2288

### VERTEX STANDARD AUSTRALIA PTY. LTD.

Normanby Business Park, Unit 14/45 Normanby Road  
 Notting Hill 3168, Victoria, Australia

Phone +61 3 95182100