



VL-1000

HF/50MHz LINEAR AMPLIFIER

QUADRA SYSTEM

For a bold, clean signal from "Top Band" through the "Magic Band," the VL-1000/VP-1000 QUADRA SYSTEM belongs in your station!

Innovative Quadra Push-Pull RF Design for 1 kW of MOSFET Power!

Yaesu's engineers have conquered the challenging task of providing high power output from 160 through 6 meters!*

Yaesu's exclusive Quadra Push-Pull design utilises 8 rugged MRF-150 MOS FETs for years of reliable operation. Special attention to system grounding and RF bypassing ensures very low spurious emissions, even at maximum power output.



Powerful 16-bit Control CPU Provides High-Speed Antenna Tuning with Extensive Memory and Multi-Band Memory Data Backup!

The heart of the control circuitry of the VL-1000 is a 16-bit microprocessor, driven by a Yaesu-exclusive tuning algorithm in software. The on-board return-loss bridge analyses the antenna system performance, instantly sending tuning instructions to the stepper motors in the antenna tuner section.

Large Dot-Matrix LCD Display Features World's First Panoramic SWR Monitor!

The huge 190 x 43 mm dot-matrix LCD provides a wealth of amplifier-status information, including peak power output, average power output, voltage, current, and SWR data. Another Yaesu 'World First' feature is the Panoramic SWR Monitor, which displays "before tuning" and "after tuning" SWR information for points across a band, providing you with instant data regarding antenna system performance.



Active Safety Protection Assures Reliability and Quick Diagnosis of System Anomalies!

High power devices like the Quadra System need

Direct Air Flow Cooling System Provides Efficient Dissipation of Heat!

Twin high-speed fans, thermostatically controlled, quietly direct cooling air across the 76 vanes of the heat sink, efficiently transferring heat out of the amplifier compartment. Both the VL-1000 Amplifier and VP-1000 Power Supply have their own fan systems with independent thermostats.



Automatic Band Change for Quick QSY!

When operating with most modern Yaesu transceivers band data information can be transferred between transceiver and amplifier, allowing automatic amplifier band change when you change bands on the transceiver (Band Data Cable for FT-1000D/FT-1000MP/FT-920 supplied)* The VL-1000 also provides Automatic Band Change via a frequency sensing circuit which instantly changes band when RF drive is first applied, for use with other excitors.

Two Input and Four Output Antenna Jacks for Versatile Integration Opportunities in Your Station!

The two input jacks allow, for example, connection of an HF transceiver to INPUT 1 and a 6-meter transceiver to INPUT 2, while the four output jacks may be connected to your station's many antenna systems. Automated antenna selection is provided for the exciter connected to the INPUT 1 jack, eliminating the need for multiple antenna-selection keystrokes.

High-Performance Switching Relays with Automatic Maintenance Mode!

The VL-1000's high performance switching relays have been specified to provide years of fault-free operation. Unique to the VL-1000 design is the Automatic Maintenance Mode, which "exercises" the

world-class protection circuits to assure years of reliable operation. Active monitors inside the Quadra System warn of input voltage problems, excessive heat-sink temperature, excessive SWR, and/or power supply connection problems. Should a problem occur, a diagnostic message will appear on the LCD. Once the situation is corrected, the VL-1000's instant auto reset process gets you back on the air quickly!

relays periodically while the amplifier is turned off to prevent the build-up of dust, dirt, or air pollutants on the relay contacts (the VP 1000 power Supply must remain on in its 'standby" mode). This self cleaning protocol significantly reduces the chance that relay contact resistance could degrade performance.

SPECIFICATIONS

GENERAL

Frequency Range: 160 - 6 Meters

160 - 15, 6 Meters (USA version) *

Power Output: (220V AC Input) 1000 Watts (SSB/CW)
500 Watts
9FSK-RTTY/FM)
250 Watts (AM Carrier)
(120V AC Input) 500 Watts (SSB/CW/FSK-RTTY/FM)
125 Watts (AM Carrier)

Input Voltages: DC +48V, DC +12V, DC -12V
Current 48A (DC +48V), 2,8A (DC +12V),
Consumption: 0.1A (DC -12V)
Weight: 21 kg (46.3 lbs.)
Dimensions: 413 (W) x 151 (H) x 451 (D)
(include. feet, switches)

VP-1000 Power Supply

Input Voltage: AC 100 - 240V (Automatic switching)
Output Voltage: DC +48V, DC +12V, DC -12V
AC Current 13A (AC 200 - 240V @ 1kW Drain: output)
15A (AC 100 - 200V @ 500W output)
Dimensions: 413 (W) x 151 (H) x 381 (D) mm
(include. feet, switches)
Weight: 14.6 kg (32.2 lbs.)

Options

CT-56 Band Data Cable for FT-840/890/900
MR-1000 Mounting Rack w/Carrying Handles

LINEAR AMPLIFIER SECTION

Input Power: 2,100 Watts max.
RF Drive Power: 80 Watts (max.) for full output
Spurious Emissions: Better than -50 dB (HF)
Better -60 dB (50 MHz band)
3rd-order Intermodulation Products: At least -30 dB
Input Impedance: 50 Ohms, unbalanced
Output Impedance: 50 Ohms, unbalanced

AUTOMATIC ANTENNA TUNER

Matching Range: 16.7 Ohms - 100 Ohms (1.8 MHz band)
25 Ohms - 100 Ohms (50 MHz band)
16.7 Ohms - 150 Ohms (all other bands)
Maximum Power: 1,200 Watts
Insertion Loss: 0.5 dB
Matched SWR: Less than 1.5:1