

ACOM

# ACOM 1010

HF Linear Amplifier



OUTSTANDING HF POWER PRODUCTS

## MAIN FEATURES

### EASY TO OPERATE

The plate-load True Resistance Indicator (TRI) is an ACOM innovation that provides quick and precise tuning, typically in less than 10 seconds. The AUTO-OPERATE function will return the amplifier to the OPERATE mode automatically after each protection trip, saving time and avoiding manual switching.

### ANTENNA TUNER AS AN OPTION

The amplifier does not need an external antenna tuner as long as the antenna's SWR is 3:1 or lower.



### USER-FRIENDLY AND DURABLE

This amplifier is both user-friendly and self-monitoring. It is designed to safely withstand up to 240 W of reflected power, up to 100 milliseconds of drive spikes (RF "tails" after a PTT or KEY release), and even operator tuning errors. It is also capable of operating at more than half of its designed output power at only 75% of nominal line (mains) voltage. Because it can tolerate deep voltage drops (down to zero for 10 milliseconds) and 15% line voltage spikes, it is particularly suited for use in portable environments, such as field days and DXpeditions.

### LED BAR-GRAPH DISPLAY

The upper LED bar-graph always reads peak forward power (except for service functions) while, the lower LED bar-graph is for the reflected power. LED warning indicators are provided for abnormal conditions of grid 1, grid 2, and plate parameters.

### ANTENNA SELECTION

Two antenna outputs are selectable on the front panel of the amplifier.

### EFFICIENT TUNING

Antenna matching can be achieved in less than 10 seconds and at a quarter of nominal output power, which produces lower risk of interference to other stations and greater safety to the amplifier components.

### TRANSCIVER-INDEPENDENT

The amplifier operates without special signaling from the transceiver. It needs only "ground on TX" and 60 W RF drive power to operate at full output power.

### BROADBAND INPUT MATCHING

Broadband input matching circuitry offers excellent loading characteristics for the driving transceiver, from 1.8 MHz to 30 MHz.

### SINGLE TUBE OPERATION

A single Svetlana 4CX800A (GU74B) high-performance ceramic-metal tetrode with plate dissipation of 800 W (forced air cooling, grid-driven) is used for maximum efficiency.

### PERMANENT MONITORING AND PROTECTION OF THE PLATE AND GRIDS CURRENTS

The Bias Optimizer minimizes heat dissipated by the tube, assuring tube longevity.

### HIGH VOLTAGE PROTECTION

Design of the high-voltage power supply eliminates the danger of turn-on transients affecting sensitive devices connected to the same line (mains) circuit. Moreover, the amplifier can be set on 8 different nominal line voltages: 100, 110, 120, 200, 210, 220, 230, or 240 VAC, 50 or 60 Hz.

## SPECIFICATIONS

### FREQUENCY COVERAGE

All amateur bands in the 1.8-29.7 MHz frequency range (extensions and/or changes on request)

### POWER OUTPUT

700 W PEP or 500 W continuous carrier

### INTERMODULATION DISTORTION

Better than 35 dB below rated output

### HUM AND NOISE

Better than 40 dB below rated output

### HARMONIC OUTPUT SUPPRESSION

Better than 50 dB below rated output

### INPUT AND OUTPUT IMPEDANCE

- Nominal value: 50 Ohm unbalanced, UHF (SQ-239) type connectors
- Input circuit: broadband, SWR less than 1.3, 1.8-30 MHz continuously (no tuning, no switching)
- Bypass path: SWR less than 1.1, 1.8-30 MHz continuously, 200 W maximum
- Output (antenna) impedance matching capability: SWR up to 3 or higher

### RF GAIN

11 dB typically, frequency response less than 1 dB (50-70 W drive power for rated output)

### MAINS POWER SUPPLY VOLTAGE

85-132 VAC and 170-264 VAC (100, 110, 120, 200, 210, 220, 230 & 240 V nominal taps, +10% -15% tolerance), 50-60 Hz, Single phase

### MAINS POWER CONSUMPTION

1200 VA at rated output

### SAFETY AND ELECTROMAGNETIC COMPATIBILITY

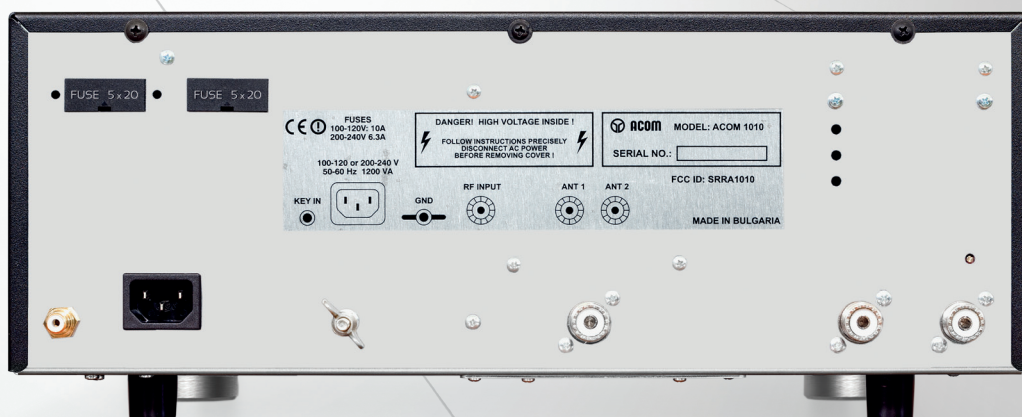
Complies with CE safety and electromagnetic compatibility requirements, as well as with the US Federal Communications Commission (FCC) regulations

### SIZE & WEIGHT

- Operating (excluding connected cables), WxDxH: 402x315x166 mm, 17 kg (15.9x12.4x6.6 inches, 37.5 lbs)
- Shipping, WxDxH: Approx. 580x460x340 mm, 20 kg (22.9x18.2x13.4 inches, 44.1 lbs)

### OPERATING ENVIRONMENTS

- Temperature range: 0 to +50 °C (32 °F to 122 °F)
- Relative air humidity: up to 95% @ +35 °C (95 °F)
- Height above sea level: up to 3050 m (10000 ft) without output deterioration



Dealer/Partner's address:

ACOM



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