

# ACOM 2100 HF + 6 m Linear Amplifier



## **OUTSTANDING HF POWER PRODUCTS**

## **MAIN FEATURES**

#### **EASY TO OPERATE**

The plate-load True Resistance Indicator (TRI) is a powerful tuning aid which, together with the automatically controlled input attenuator, helps the operator to quickly and precisely match the antenna impedance to the optimum tube load impedance (5-10 seconds typically). The AUTO-OPERATE function (when enabled) maintains the amplifier in OPERATE mode for you, thus saving manual operations and time.

## **USER-FRIENDLY AND DURABLE**

An amplifier that is both user-friendly, and that looks after itself. It is designed to safely withstand up to 400 W reflected power, up to 100 milliseconds duration of drive spikes, drive RF "tails" after a PTT or KEY release, operator's inadvertent tuning errors, etc. The amplifier would also not cease to function with a "soft" AC mains and would deliver more than half power at only 85% of nominal mains voltage. It would withstand up to 10 milliseconds (down to zero) voltage drops, and up to +15% line voltage spikes, which is important particularly when used at Field Days, DXpeditions, and other portable operating events where emergency power is relied upon.



## **OLED COMMENT DISPLAY**

All amplifier status indications are explained via detailed text displayed on the high brightness and contrast OLED display. The upper-line's strip on the display always reads peak forward power. LED indicators are provided for OPERATE mode, attenuation-on, transmit, selected antenna output, and ON/OFF conditions.

## NO ANTENNA TUNER NEEDED

No heavy outboard antenna tuners required for antenna SWR up to 3:1 (and higher on some bands). Your amplifier will enable you to change antennas virtually instantaneously and allow you to use your antennas over wider frequency ranges.

## **THREE ANTENNA OUTPUTS**

Three antenna outputs are selectable using a pushbutton on the front panel.

## **BROADBAND INPUT MATCHING**

Resulting in a very good load to the transceiver over the entire spectrum from 1.8 MHz up to 54 MHz.

## LESS NOISE IN THE SHACK

The input bypassing and the vacuum antenna relays are virtually silent even in the CW QSK mode thanks to specially designed mounting hardware.

## TRANSCEIVER-INDEPENDENT

The amplifier operates without special signals from the transceiver - "Ground on TX" and 85 W RF drive power are sufficient.

## SINGLE TUBE OPERATION

Uses a ceramic and metal radial beam tetrode with plate dissipation of 1000 W which is specially designed for class AB1 RF linear amplifier operation.

## **TUBE PROTECTION**

Permanent monitoring and protection of plate and grid voltages and currents, reflected power as well as of the exhaust air temperature.

## **OUTPUT RF ARC PROTECTION**

An output RF Arc protection is employed. This important feature safeguards the amplifier, antenna, antenna selector, and tuner against severe damage in case of possible breakdown.

## **CONTINUOUS MONITORING**

Continuous monitoring and/or selectable measurement of the 12 most important parameters of the amplifier, exciter, and the selected antenna via OLED display.

## **EASY MAINTENANCE**

Data (service information) regarding amplifier internal status is stored in a nonvolatile memory for 7 of the most recent auto protection trips.

## **SPECIFICATIONS**

## **FREQUENCY COVERAGE**

All amateur bands in the 1.8-54 MHz frequency range (extensions and/or changes on request)

## **POWER OUTPUT**

1500 W PEP or continuous carrier, no mode limit

## **INTERMODULATION DISTORTION**

Better than 32 dB below rated output

## HUM AND NOISE

Better than 40 dB below rated output

## HARMONIC OUTPUT SUPPRESSION

- 1.8-29.7 MHz better than 50 dB below rated output
- 50-54 MHz better than 66 dB below rated output

## MAINS POWER SUPPLY VOLTAGE

85-132 VAC / 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

3500 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



## **INPUT AND OUTPUT IMPEDANCES**

- Nominal value: 50 Ohm unbalanced, UHF (SO-239) type connectors
- Input circuit: broadband, SWR less than 1.3:1, 1.8-54 MHz continuously (no tuning, no switching)
- Bypass path SWR less than 1.1:1, 1.8-54 MHz continuously
- Output (antenna) impedance matching capability: SWR up to 3:1 or higher at reduced output levels

## **RF GAIN**

13.5 dB typically, frequency response less than1 dB (50-85 W drive power for rated output)

## **SIZE & WEIGHT**

- Operating (excluding connected cables) WxDxH: 445x375x205 mm, 29.3 kg (17.6x14.8x8.1 inches, 64.6 lbs.)
- Shipping
  - Amplifier carton, WxDxH: Approx. 610x490x380 mm, 17.0 kg (24.1x19.3x15.0 inches, 37.5 lbs.)
  - Transformer carton, WxDxH: Approx.
    330x390x370 mm, 16.5 kg (13.0x15.4x14.6 inches, 36.4 lbs.)

## **OPERATING ENVIRONMENTS**

- Temperature range: 0...+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









## ♀ ACOM Ltd.

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