

ACOM

ACOM 1003

HF + 6 m Linear Power Amplifier



OUTSTANDING HF POWER PRODUCTS

MAIN FEATURES

USAGE

ACOM 1003 is an autonomous and independent linear amplifier that covers all amateur radio bands from 1.8 MHz to 54 MHz. It delivers 1000 W power output PEP or 900 W continuous carrier with no limitation to the operating mode, with 50-80 W input power (from the transceiver).

SINGLE TUBE OPERATION

Uses a single 3CX800A7 ceramic/metal triode, cathode driven. The 3CX800A7 is a very popular tube, especially in the US market, where it is easy to find.

EASY TO OPERATE

Antenna setup is made simple by a bar indicator for accurate setting of the actual load resistance at the tube anode (TRI). An operator controlled input attenuator allows for easy decrease of input power, without the need of transceiver adjustments. Peak power bar indicator, operational parameters and text messages are displayed during operation on a two line OLED display. Switching receive/transmit is fast and OSK compatible, using a silent HF reed relay.

NO EXTERNAL ANTENNA TUNER NEEDED

No need of external antenna tuner (ATU) for antenna SWR up to 1:3. A SWR up to 1:3 is allowed at 1000 W output to the antenna.



THREE ANTENNA OUTPUTS

Three antenna outputs are selectable using a push-button on the front panel.

TRANSCIVER-INDEPENDENT

The amplifier operates without special signals from the transceiver - "Ground on TX" (PTT) and 80 W RF drive power are sufficient.

USER-FRIENDLY AND DURABLE

An amplifier that is both user-friendly and that looks after itself.

- Operator selectable class AB2 mode for best linearity or class B for minimal loss at the anode in continuous digital modes;
- Operator selectable modes of full or 50% reduced power output with no decrease in efficiency;
- Auto controlled cooling air flow;
- Continuous monitoring of parameters and tube protection;
- Able to monitor 20 operator selectable amplifier parameters on the display;
- Unique ACOM protection for the bands switch (BAND);
- Original ACOM HF arc protection at the output, or at the antenna;
- Original ACOM TRI prompt: bar indicator for quick and accurate setting of the actual load resistance at the tube anode when matched to the antenna;
- Factory preset input lowpass filters for best linearity and input SWR less than 1.3 for any amateur radio band.

OLED COMMENT DISPLAY

Two line OLED (Organic Light Emitting Diode) display peak bar indicator for the output power, 20 operational parameters and detailed text messages. All amplifier status indications are explained via detailed text displayed on the OLED display.

INPUT IMPEDANCE MATCHING

The factory-tuned LP filters contribute to the best linearity and input SWR below 1.3 within each band.

QSK CW MODE

A reed-switches antenna relay is used, which guarantees the quiet QSK CW mode and less noise in the shack.

EASY MAINTENANCE

Signatures of the amplifier internal status are stored in a nonvolatile memory for 7 most recent auto protection trips. This information can be forwarded to your dealer for diagnostics.

SPECIFICATIONS

FREQUENCY COVERAGE

All amateur bands in the 1.8-54 MHz frequency range

POWER OUTPUT

- 1000 W PEP or 900 W continuous carrier, with no limitation to the operating mode
- In continuous carrier modes (RTTY etc.) for transmissions longer than 5 minutes, the external auxiliary fan (option) must be mounted

INTERMODULATION DISTORTION

No more than 34 dB IMD3 with regard to one of the two tones (40 dB with regard to PEP)

HF GAIN

12 dB \pm 1 dB (50-80 W at the input for rated output power)

MAINS POWER SUPPLY VOLTAGE

90-132 VAC / 180-264 VAC (100, 110, 120, 200, 210, 220, 230 & 240 VAC nominal taps, \pm 10% tolerance), 50-60 Hz, Single phase

MAINS POWER CONSUMPTION

2000 VA at rated output, at 240 VAC



The ACOM 1003 is shown with an optional fan mounted.

HUM AND NOISE

No more than 40 dB at rated power

HARMONIC OUTPUT SUPPRESSION

- 1.8-29.7 MHz - no less than 50 dB below rated power
- 50-54 MHz - no less than 70 dB below rated power

INPUT AND OUTPUT IMPEDANCES

- 50 Ohm asymmetric, UHF coaxial connectors (SO-239A)
- Input circuit: factory setup low-pass filters for high level of linearity and input SWR no more than 1.3 in every HAM radio frequency band from 160 m to 6 m
- Bypass section SWR: No more than 1.1 continuously from 1.8 MHz to 54 MHz
- Range of matched output impedances: SWR to 3 at an arbitrary phase angle

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: 423x398x195 mm, 22.0 kg (16.7x15.7x7.7 inches, 46.3 lbs.)
- Shipping, WxDxH: Approx. 632x583x413 mm, 25.0 kg (24.9x23.0x16.3 inches, 55.2 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

Dealer/Partner's address:

ACOM



📍 ACOM Ltd.

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ACOM 1003 Brochure | First Edition, Revision 03 | April 2025.

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