ACOM 500S

160-4 m Linear Power Amplifier



OUTSTANDING HF POWER PRODUCTS

www.acom-bg.com

MAIN FEATURES

USAGE

The ACOM 500S is a state-of-the art linear power amplifier that covers all amateur bands from 1.8 through 70.5 MHz and provides 500 W rated output power (PEP or digital).

EASY TO OPERATE

The amplifier operating information is shown on a multi-functional, high-resolution color display. ACOM 500S can be controlled either by the six front-panel buttons or remotely.

USER-FRIENDLY AUTOMATIC CONTROL

When connected to a transceiver with CAT capability, the amplifier will track the operating frequency and will change bands accordingly.

BROADBAND INPUT CIRCUIT

Broadband input circuit, providing transceiver load with SWR below 1.5 without retuning throughout the whole frequency range from 1.8 to 70.5 MHz.

EASY MAINTENANCE

Detailed data about each of the last hard-fault protection trips is stored in the amplifier's non-volatile memory.

REMOTE CONTROL CAPABILITIES

Remotely controlled by RS-232 port and via the Internet by the ACOM eBox Ethernet Remote Control device (function in development).



The amplifier is shown near to ACOM 06AT antenna tuner.

Even if not CAT connected, the amplifier monitors the input signal frequency through the built-in frequency counter and automatically switches bands.

HIGH-RESOLUTION COLOR DISPLAY

All amplifier status indications are explained via detailed text displayed on the 5" high-resolution color display.

TRANSCEIVER-INDEPENDENT

Compatible with all transceiver models - does not need any special signals: "ground on transmit" and less than 25 W of RF drive power is sufficient.

LDMOS TRANSISTOR TECHNOLOGY

The ACOM 500S amplifier uses a rugged LDMOS transistor.

INTELLIGENCE

Takes care of itself via continuously working protection circuits in all modes.

COMPACT AND LIGHTWEIGHT CONSTRUCTION

Convenient for expeditions and field operation due to the extremely compact and lightweight construction and the built-in switching-mode power supply (SMPS). SMPS operates with extended mains voltage range of 100-240 VAC, with no internal switch over. The consumed current is purely sinusoidal, Power Factor Corrected (PFC) and inrush limited. This makes the operation of unstable mains and generators easy and trouble free.

ELECTROMAGNETIC COMPATIBILITY

Perfect electromagnetic compatibility (EMC) with both highly sensitive devices and the powerful devices in the radio station (receivers, computers, other amplifiers) exceeds the standard EMC requirements due to the used built-in radio-frequency filters.

SPECIFICATIONS

FREQUENCY COVERAGE

All amateur bands from 1.8 through 70.5 MHz.
(extensions and/or changes on request)

RATED POWER OUTPUT

500 W ±0.5 dB, PEP or digital

INTERMODULATION DISTORTION (IMD3)

Better than 30 dB below the rated PEP

HARMONIC AND PARASITIC EMISSIONS OUTPUT SUPPRESSION

- Bellow 30 MHz - better than 50 dBc below rated output
- Above 30 MHz - better than 70 dBc below rated output

INPUT IMPEDANCES

- Nominal value: 50 Ohm unbalanced, UHF (SO-239A) type connectors
- SWR: Below 1.5 (1.2 typically), 1.8-70.5 MHz continuous range
- RF bypass: SWR - below 1.1, 1.8-70.5 MHz

ANTENNA IMPEDANCE

- Nominal value: 50 Ohm unbalanced
- Two antenna outputs available:
  - RF OUTPUT 1 output has to be used for direct connection to ACOM antenna tuners 04AT or 06AT only. ACOM antenna tuners 04AT and 06AT support antennas within 160 to 6 meter bands
  - RF OUTPUT 2 output has to be used for direct connection to antenna or to non-ACOM antenna tuner. A well-matched antenna with an SWR below 1.5 can be connected to this output for any band. While low SWR is good for any band, it is extremely important on 6 and 4 m.
- Antenna connectors: PTFE UHF (SO-239A) type

RF POWER GAIN

11.7 dB ±1.5 dB
(typically 35 W drive for rated output)

MAINS POWER SUPPLY VOLTAGE

100-240 VAC ±10%, 50-60 Hz, Single phase

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: 291x270x157 mm, 7.8 kg (11.5x10.7x6.2 inches, 17.2 lbs.)
- Shipping, WxDxH: Approx. 500x470x380 mm, 11.6 kg (19.7x18.5x15.0 inches, 25.6 lbs.)

OPERATING ENVIRONMENTS

- Temperature range: -10...+40 °C (14 °F to 104 °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:



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