

ACOM

# ACOM 700S

1.8-54 MHz Linear Power Amplifier



OUTSTANDING HF POWER PRODUCTS

## MAIN FEATURES

### EASY TO OPERATE

The overall operation of ACOM 700S is extremely simplified: the screen menus are intuitive and easy to follow, no special skill is required from the operator when changing frequency bands.

### USER-FRIENDLY AUTOMATIC CONTROL

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

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 24-bit color display (108x65 mm, 800x480 pixels).

### TRANSCEIVER-INDEPENDENT

Compatible with all transceiver models - does not need any special signals: "ground on transmit" and less than 40 W of RF drive power is sufficient.

### LDMOS TRANSISTOR TECHNOLOGY

The final PA stage uses a rugged 1250 W LDMOS transistor.

### BROADBAND INPUT CIRCUIT

Broadband input circuit, providing a perfect transceiver load with SWR below 1.2:1 (typically 1.1:1), without retuning throughout the whole frequency range from 1.8 to 54 MHz.

### INTELLIGENCE

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

The operator can monitor numerically more than 10 parameters of the amplifier in operation.

### EASY MAINTENANCE

Detailed data (55 parameters) about each of the last 28 hard-fault protection trips is stored in the amplifier's non-volatile memory.

### REMOTE CONTROL CAPABILITIES

Remotely controlled by RS-232 port and via Internet by the ACOM eBox Ethernet Remote Control device.

### 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 from 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) exceeding the standard EMC requirements due to the used PFC and built-in radio-frequency filters.



## SPECIFICATIONS

### FREQUENCY COVERAGE

All amateur bands in the 1.8-54 MHz frequency range

### RATED POWER OUTPUT

700 W  $\pm 0.5$  dB, PEP or continuous carrier

### INTERMODULATION DISTORTION

Better than 31 dB below the rated PEP output

### HARMONIC AND PARASITIC EMISSIONS OUTPUT SUPPRESSION

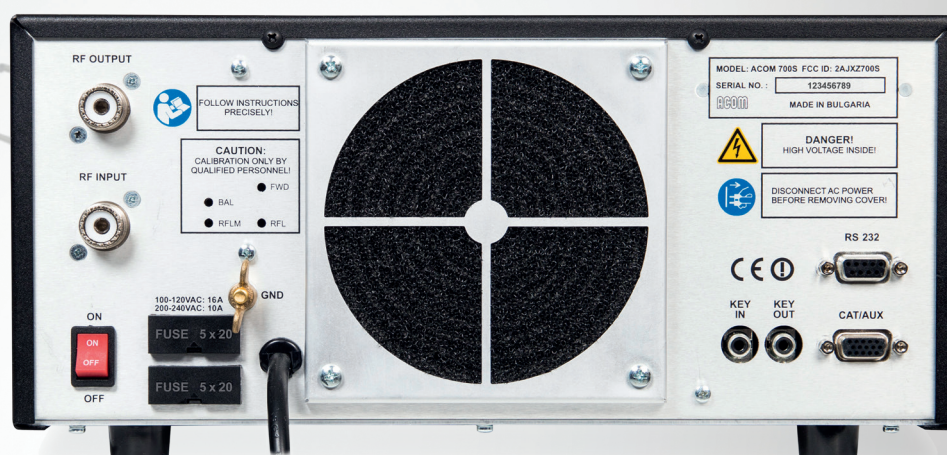
Better than 60 dB (65 dB typically)

### MAINS POWER CONSUMPTION AT FULL OUTPUT POWER

1350 VA or less with power factor of 0.95 or higher

### MAINS POWER CONSUMPTION IN LOW ENERGY (WAITING) MODE

Less than 1 VA



### INPUT AND OUTPUT IMPEDANCES

- Nominal value: 50 Ohm unbalanced, UHF (SO-239) type connectors
- Input circuit: broadband, SWR below 1.2:1 (1.1:1 typically), 1.8-54 MHz continuous range without retuning or switching
- RF bypass path SWR: below 1.1:1, 1.8-54 MHz
- Acceptable SWR at the output load (the antenna): up to 3:1 with proportional power reduction and up to 1.5:1 for full output power

### RF POWER GAIN

14 dB  $\pm 1$  dB

(typically 27 W for 700 W output power)

### MAINS POWER SUPPLY VOLTAGE

100-240 VAC (switching-mode power supply),  
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 and opened tilt foot bar), WxDxH: 326x388x155 mm, 11.6 kg (12.9x15.3x6.1 inches, 25.6 lbs.)
- Shipping, WxDxH: Approx. 490x490x340 mm, 15.0 kg (19.3x19.3x13.4 inches, 33.1 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:

ACOM



📍 ACOM Ltd.

Bulgaria | Bozhurishte 2227  
Sofia-Bozhurishte Industrial Park | 6 Valeri Petrov Str.  
GPS coordinates: 42.748616° | 23.209801°

📧 [info@acom-bg.com](mailto:info@acom-bg.com)



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ACOM 700S Brochure | First Edition, Revision 04 | March 2025.

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