

ACOM

# ACOM 06AT

Automatic Antenna Tuner and Switch  
for ACOM solid state amplifiers



The antenna tuner is shown near to ACOM 700S amplifier.

OUTSTANDING HF POWER PRODUCTS

## MAIN FEATURES

The ACOM 06AT is an automatic antenna tuner with an integrated four-position antenna switch. It matches the selected antenna impedance to the ACOM solid state amplifiers.

The ACOM 06AT is designed for installation in a shack, right next to your amplifier thanks to its pleasant looks.

### AUTOMATIC ANTENNA MATCHING AND CHANGE

Provides automatic or manual antenna change and automatic antenna impedance matching to the ACOM solid state amplifiers, controlled entirely from the amplifier front panel and your transceiver CAT.

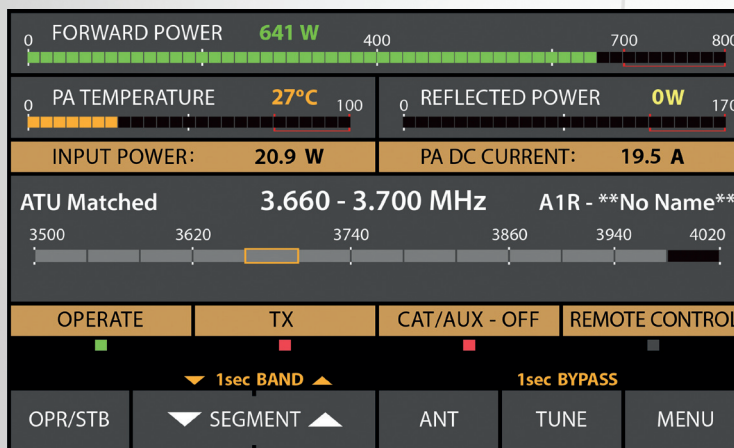
in the ACOM 06AT non-volatile memory through the ACOM solid state amplifier's RS-232 port.

### USER-FRIENDLY

A plenty of antenna- and tuner- related information is available on the ACOM solid state amplifier screen: menus ATU SERVICE, ATU MEASURE, ATU TUNINGS LOOKUP/ERASE, Resource-estimate function, etc. On the ACOM solid state amplifiers screen the antennas appear with a number, type, and user-editable name, as well as, tunings availability are presented by a graphic scale.

### GUARD FUNCTIONS

Guards the transceiver and amplifier against excessive impedance mismatch during the tuning process.



### ANTENNA TYPES

Four typical antenna types: Regular, Sharp, Wide, and Fixed-frequency can be used so the operator can adapt the frequency segment width to the specific antenna bandwidth. BYPASS mode is also available.

### TUNING

Operates in two tuning modes: full tuning mode (basic matching cycle) and fast tuning (retrieving user tuning patterns from nonvolatile memory). Full tuning is 100% automated however a cycle is initiated only by the operator. User tuning patterns track the antenna and frequency changes automatically during amplifier and transceiver operation. Tuning "age" warning can be set to warn you when you attempt to use an outdated tuning. The user can archive all tunings from tuner nonvolatile memory in a computer file as well as upload earlier archived files

### POWER SUPPLY AND CONTROL

Powered and controlled directly from the ACOM solid state amplifiers through the amplifier RF output cable only. There is no need for power or control cables between the amplifier and the tuner.

### PROTECTIONS

PS voltage, Reverse PS polarity, Excessive RF voltage, RF current or reflected power at the antenna outputs, Excessive tuning power, Excessive Input power, Hot switching of relays, Overheating, etc. Protected against building of static electricity in the antennas via bleeding resistors and against close lightning strikes via gas-filled discharger. Unused antennas are directly grounded during operation as well as all antennas are when the ACOM 06AT is powered off.

## SPECIFICATIONS

### FREQUENCY COVERAGE

Continuous from 1.8 to 30 and from 50 to 54 MHz  
(extensions and changes on request)

### ANTENNA IMPEDANCE MATCHING CAPABILITY

All impedances with SWR from 1:1 to 3:1 towards 50 Ohm, any phase angle, unbalanced input and output.

(For some frequencies and impedances, matching is possible at SWR above 3:1 at the antenna output (up to 10:1), but the maximum allowed power is reduced.)

### MAXIMUM ALLOWED INPUT POWER

PEP, Mean or Continuous Carrier, Without Mode Limitations:

- At antenna SWR below 2.5: 1500 W
- At antenna SWR between 2.5 and 3: 1200 W
- At antenna SWR between 3 and 5 (provided matching is possible): 500 W
- At antenna SWR between 5 and 10 (provided matching is possible): 200 W  
(Operation with SWR above 10:1 is not allowed.)

### RF INPUT CHARACTERISTICS

- Rated impedance: 50 Ohm unbalanced
- Input connector type: UHF/PTFE (SO-239A)
- Number of outputs: 4
- SWR during full tuning (basic cycle):  
No higher than 2:1
- SWR immediately after full tuning:  
No higher than 1.5:1 (1.3:1 typically)

### FAST TUNING DURATION

Less than 50 ms (from nonvolatile memory)

### FULL TUNING DURATION

(basic matching cycle)

- Below 10 MHz: less than 5 s (2-3 s typically)
- Above 10 MHz: less than 3 s (1-2 s typically)

### INPUT SIGNAL NEEDED TO PREPARE USER TUNING SETTINGS

25 W +3/-3 dB (12.5 to 50 W), non-modulated

### POWER SUPPLY AND CONTROL

- Available from the ACOM solid state amplifiers through RF output coaxial cable
- +26 VDC, +10/-15% (consumption of 25 W at most)
- Control data using a FSK modem at 60 kHz

### SIZE & WEIGHT

- Operating (excluding connected cables),  
WxDxH: 212x312x158 mm, 3.8 kg  
(8.4x12.3x6.3 inches, 8.4 lbs.)
- Shipping  
WxDxH: Approx, 382x459x348 mm, 6.0 kg  
(15.1x18.1x9.8 inches, 13.2 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)



ACOM and the ACOM logo are registered trademarks of ACOM Ltd. in many countries, including the EU and United States. | The used images are illustrative only. Subject to change without notice. | Printed in Bulgaria. All rights reserved. | Design and content by ACOM Ltd.

ACOM 06AT Brochure | First Edition, Revision 01 | September 2022.

[www.acom-bg.com](http://www.acom-bg.com)