

SPECIAL PURPOSE MICROPHONES



Description

The AT822 is an X/Y stereo condenser microphone with full mono compatibility. Designed primarily for DAT recording, it is also well-suited for television, FM, and field applications. Equally appropriate for hand-held or camera-mount use, the AT822 microphone provides full, natural stereo ambience in a compact, lightweight design.

Those working on DAT recording will discover the AT822's ability to readily respond to the typical configuration for high-quality stereo audio recording. This includes true stereo ambience (crowd noise, music, etc.) mixed with narrative talent on a center mono channel. Under a deadline crunch or in single-take situations, sound technicians will also appreciate the AT822's excellent channel separation.

The AT822 is equipped with a pair of wide-range, closely-matched, optimally-positioned cardioid condenser elements. Because the polar response vs. frequency of these elements is so uniform, the AT822 provides the spatial impact and realism of a live sound field. Natural-sounding response is maintained over an arc of approximately 170°.

Engineered with a permanently-charged fixed back plate, the AT822 element features a diaphragm reduced to a mere 2-micron thickness (about 0.000079"). The results are minimal distortion and improved transient response.

The AT822 features a switchable low-roll-off filter, windscreen, and camera mount adapter. A 1.5V AA/UM3 battery (included) is required for operation. Current demands are so low that battery life exceeds 1000 hours in normal intermittent use. The supplied 1.7' shielded cable features a 3-pin XLR-type input connector and a 3.5 mm stereo mini plug output connector. Also included is a 10.0' shielded cable featuring a 3-pin XLR-type input connector and two 3.5 mm mono mini plug output connectors with 1/4" phone plug adapters. A gun-grip snap-in microphone stand adapter is included for mounting to any stand with 5/8"-27 threads. A compact, soft pouch is provided to hold and protect the microphone and accessories.

Operation and Maintenance

Before attempting operation, install the battery. Unscrew the lower section of the handle of the microphone and slide it down to reveal the battery compartment. Place battery in handle compartment being certain to observe polarity as indicated (+ end forward). Close and secure the cover. While standard carbon zinc batteries will operate the microphone satisfactorily, alkaline or mercury batteries are recommended for longest service life. Only "leakproof" batteries should be used. **WARNING:** The AT822 is designed for battery use only. Do not attempt to use when phantom power is present. Possible damage to the microphone may result. Please note, however, that the presence of a bias voltage (from a DAT recorder, for example) is acceptable and will not harm the microphone.

The two stereo outputs are low impedance unbalanced. The unbalanced signals appear on Pin 2 for the left channel and Pin 3 for the right channel. The ground (shield) connection for both channels is Pin 1. Output is phased so that positive acoustic pressure produces positive voltage at Pins 2 and 3 in accordance with industry convention.

Locating the AT822 near the sound source will enhance the width of the stereo image, while decreasing room ambience. Conversely, as the mic position recedes from the sound source, a narrower left/right stereo image will result and more of the "room sound" will be noted. After experimenting with placement, operators will soon get the "feel" of where to position the AT822 for the best overall effect in a particular recording situation.

The high sensitivity of the AT822 assures useful output under most circumstances. In addition, it is designed to provide a distortion-free signal even in very intense sound fields. However, the microphone's high output may overload sensitive electronic input stages. Many electronic devices include input attenuator switches which may be used to prevent overload.

AT822 ONEPOINT® X/Y STEREO DAT MICROPHONE

Architects and Engineers Specifications

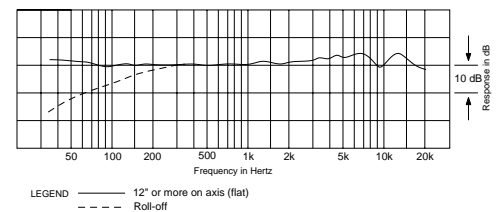
The microphone shall be a fixed-charge condenser with two miniature condenser cardioid elements in an X/Y stereo configuration. The stereo angle shall be 110°. The frequency response shall be 30 Hz to 20,000 Hz, and the microphone shall have a switch for selection of flat or low-roll-off response.

The microphone shall have a nominal open-circuit output voltage of 5.6 mV at 1 kHz, 1 Pascal. It shall have an output impedance of 200 ohms and output shall be unbalanced. It shall operate from a 1.5V AA/UM3 battery. The microphone shall accept 125 dB SPL at 1 kHz while producing no greater than 1% T.H.D.

The microphone shall include a 1.7' shielded cable with a 3-pin XLR-type input connector and a 3.5 mm stereo mini plug output connector, a 10.0' shielded cable with a 3-pin XLR-type input connector and two 3.5 mm mono mini plug output connectors with 1/4" phone plug adapters, and a foam windscreen. The microphone shall be 7.76" (197.0 mm) long and the head shall be 2.44" (62.0 mm) wide. The weight shall be 5.8 oz (165 grams). Finish shall be low-reflectance matte.

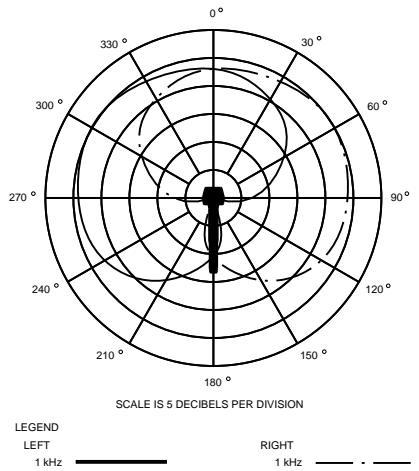
The Audio-Technica AT822 is specified.

Frequency Response

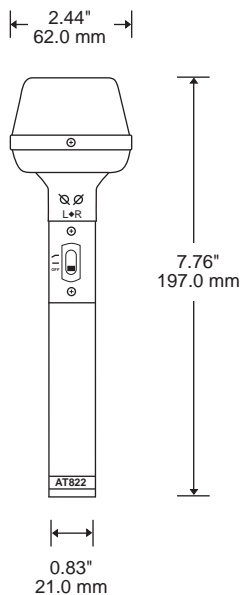


AT822

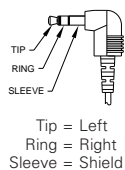
Polar Pattern



Dimensions



Stereo Mini Plug



AT822 SPECIFICATIONS†

ELEMENT	Fixed-charge back plate permanently polarized condenser
POLAR PATTERN	Cardioid (unidirectional) stereo
FREQUENCY RESPONSE	30-20,000 Hz
LOW-FREQUENCY ROLL-OFF	150 Hz, 6 dB/octave
OPEN CIRCUIT SENSITIVITY	-45 dB (5.6 mV) re 1V at 1 Pa*
CHANNEL BALANCE	≤ 2.5 dB
IMPEDANCE	200 ohms unbalanced
MAXIMUM INPUT SOUND LEVEL	125 dB SPL, 1 kHz at 1% T.H.D.
SIGNAL-TO-NOISE RATIO‡	70 dB, 1 kHz at 1 Pa*
DYNAMIC RANGE (TYPICAL)	101 dB, 1 kHz at Max SPL
BATTERY TYPE	Use only "leakproof" AA/UM3 1.5V battery WARNING: The AT822 is designed for battery operation only. Do not attempt to use when phantom power is present. Possible damage to the microphone may result.
BATTERY CURRENT	1.2 mA
BATTERY LIFE (INTERMITTENT USE)	More than 1000 hours (alkaline battery)
SWITCH	Off, flat response, low-roll-off
WEIGHT (LESS CABLES AND ACCESSORIES)	5.8 oz (165 grams)
DIMENSIONS	7.76" (197.0 mm) long, 2.44" (62.0 mm) head width, 0.83" (21.0 mm) body diameter
OUTPUT CONNECTOR	Integral 3-pin XLRM-type
CABLES	1.7' (0.5 m) long, 3-conductor, shielded, vinyl-jacketed, stereo cable with 3-pin XLRF-type connector at microphone end, 3.5 mm stereo mini plug at output end. 10.0' (3.0 m) long, 3-conductor, shielded, vinyl-jacketed, stereo cable with 3-pin XLRF-type connector at microphone end, two 3.5 mm mono mini plugs with 1/4" phone plug adapters at output end.
ACCESSORIES FURNISHED	Gun-grip snap-in stand clamp for 5/8"-27 threaded stands; camera shoe mount adapter; battery; AT8120 windscreen; soft protective pouch

ACCESSORIES FURNISHED

† In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

* 1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

‡ Typical, A-weighted, using Audio Precision System One.

Optional Accessories:

- AT8407 universal "clothes-pin" stand clamp fits both tapered and cylindrical microphones.
- AT8415 low-profile shock mount for boom or stand operation.

One-Year Limited Warranty

Audio-Technica microphones and accessories purchased in the U.S.A. are warranted for one year from date of purchase by Audio-Technica U.S., Inc. (A.T.U.S.) to be free of defects in materials and workmanship. In event of such defect, product will be repaired promptly without charge or, at our option, replaced with a new product of equal or superior value if delivered to A.T.U.S. or an Authorized Service Center, prepaid, together with the sales slip or other proof of purchase date. **Prior approval from A.T.U.S. is required for return.** This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use product in accordance with instructions. This warranty is void in the event of unauthorized repair or modification.

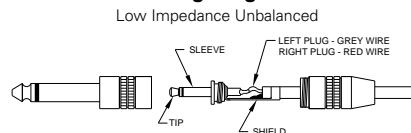
For return approval and shipping information, contact the Service Department, Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224.

Except to the extent precluded by applicable state law, **A.T.U.S. will have no liability for any consequential, incidental, or special damages; any warranty of merchantability or fitness for particular purpose expires when this warranty expires.**

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Outside the U.S.A., please contact your local dealer for warranty details.

Mini Plug with 1/4" Phone Plug Adapter Wiring Diagram



Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224
Audio-Technica Limited, Old Lane, Leeds LS11 8AG England