

# AT2010

Cardioid Condenser Handheld Microphone

 audio-technica

20 series studio/live sound microphones



## Features

- **Studio-quality sound on stage for crystal-clear vocal performance**
- **Same 16 mm low-mass diaphragm found in the critically acclaimed AT2020 side-address studio microphone**
- **Extended frequency response and superior transient response for smooth, natural sonic characteristics**
- **High SPL-handling and wide dynamic range provide unmatched versatility**
- **Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source**
- **Multi-stage grille design offers excellent protection against plosives and sibilance without compromising high-frequency clarity**
- **Rugged all-metal design and construction for years of trouble-free use**
- **Corrosion-resistant contacts from gold-plated XLRM-type connector**
- **Quiet-Flex™ stand clamp provides silent, flexible microphone positioning**

## Description

The AT2010 is a handheld condenser microphone with a cardioid polar pattern. It is designed specifically for close-up vocal use in professional live-sound and studio applications.

The microphone requires 48V phantom power for operation.

The cardioid polar pattern of the microphone is more sensitive to sound originating directly in front of the element, making it useful for controlling feedback, reducing pickup of unwanted sounds and providing isolation between performers.

The output of the microphone is a 3-pin XLRM-type connector.

The microphone is enclosed in a rugged housing. Its multi-stage grille design offers excellent protection against plosives and sibilance without compromising high-frequency clarity. The included AT8470 Quiet-Flex™ stand clamp permits mounting on any microphone stand with  $\frac{5}{8}$ "-27 threads. A soft protective pouch is also included.

## Operation and Maintenance

The AT2010 requires 48V phantom power for operation.

Output is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is "Pin 2 hot"—positive acoustic pressure produces positive voltage at Pin 2.

To avoid phase cancellation and poor sound, all mic cables must be wired consistently: Pin 1-to-Pin 1, etc.

When using the microphone in settings with a stage monitor speaker, the speaker should be located 180° off axis (at rear of the microphone). This placement, in conjunction with the microphone's uniform cardioid pickup pattern, will virtually eliminate the possibility of undesired audio feedback.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for long periods of time. Extremely high humidity should also be avoided.

## Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for handheld or stand use. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance and a frequency response of 40 Hz to 20,000 Hz. The microphone shall operate from an external 48V DC phantom power source. It shall be capable of handling sound input levels up to 136 dB with a dynamic range of 113 dB. Nominal open-circuit output voltage shall be 3.9 mV at 1V, 1 Pascal. Output shall be low impedance balanced (100 ohms).

The output of the microphone shall be a 3-pin XLRM-type connector.

The microphone shall be 179.1 mm (7.05") long and have a head diameter of 50.8 mm (2.00"). Weight shall be 233 grams (8.2 oz). The microphone shall include a stand clamp and a soft protective pouch.

The Audio-Technica AT2010 is specified.

### Specifications

<b>Element</b>	Fixed-charge back plate, permanently polarized condenser
<b>Polar pattern</b>	Cardioid
<b>Frequency response</b>	40-20,000 Hz
<b>Open circuit sensitivity</b>	-48 dB (3.9 mV) re 1V at 1 Pa
<b>Impedance</b>	100 ohms
<b>Maximum input sound level</b>	136 dB SPL, 1 kHz at 1% T.H.D.
<b>Dynamic range (typical)</b>	113 dB, 1 kHz at Max SPL
<b>Signal-to-noise ratio<sup>1</sup></b>	71 dB, 1 kHz at 1 Pa
<b>Phantom power requirements</b>	48V DC, 2 mA typical
<b>Weight</b>	233 g (8.2 oz)
<b>Dimensions</b>	179.1 mm (7.05") long, 50.8 mm (2.00") head diameter
<b>Output connector</b>	Integral 3-pin XLRM-type
<b>Audio-Technica case style</b>	T7
<b>Accessories furnished</b>	AT8470 Quiet-Flex™ stand clamp for 5/8"-27 threaded stands; 5/8"-27 to 3/8"-16 threaded adapter; soft protective pouch

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

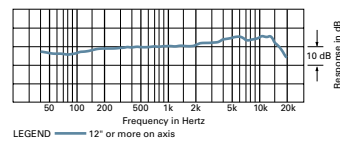
1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

<sup>1</sup> Typical, A-weighted, using Audio Precision System One.

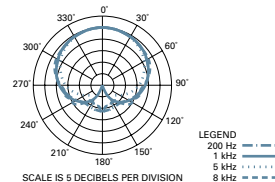
Specifications are subject to change without notice.



frequency response: 40–20,000 Hz



polar pattern



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Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224

Audio-Technica Limited, Old Lane, Leeds LS11 8AG England

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