

# AT4050 MULTI-PATTERN CONDENSER MICROPHONE

(4°) S E R I E S



- Transparent uppers/mids balanced by rich low-end qualities combine with advanced acoustic engineering for extensive performance capabilities and highest quality
- Dual-diaphragm capsule design maintains precise polar pattern definition across the full frequency range of the microphone
- Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients
- Open acoustical environment of the symmetrical housing assembly minimizes unwanted internal reflections
- State-of-the-art surface-mount electronics ensure compliance with A-T's stringent consistency and reliability standards

The AT4050 is intended for use in professional applications where remote power is available. It requires 48V DC phantom power, which may be provided by a mixer or console, or by a separate, in-line source such as the Audio-Technica AT8801 single-channel and CP8506 four-channel phantom power supplies.

Output from the microphone's XLRM-type connector 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.

An integral 80 Hz high-pass filter provides easy switching from a flat frequency response to a low-end roll-off. The high-pass position reduces the microphone's sensitivity to popping in close vocal use. It also reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations.

In use, secure the cable to the mic stand or boom, leaving a slack loop at the mic. This will ensure the most effective shock isolation and reduce the possibility of accidentally pulling the microphone out of its mount.

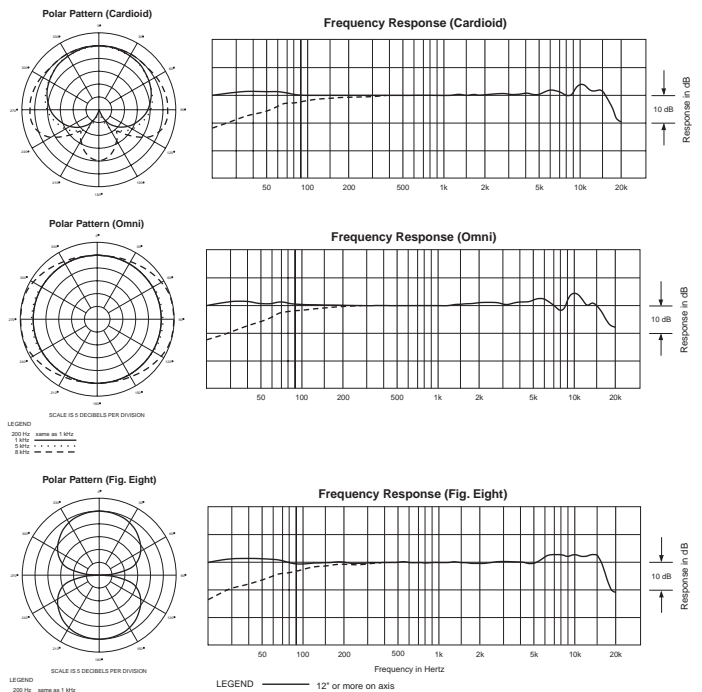
Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for extended periods. Extremely high humidity should also be avoided.

## AT4050 SPECIFICATIONS\*

<b>ELEMENT</b>	Externally polarized (DC bias) condenser
<b>POLAR PATTERN</b>	Cardioid, Omnidirectional, Figure-of-eight
<b>FREQUENCY RESPONSE</b>	20-18,000 Hz
<b>LOW FREQUENCY ROLL-OFF</b>	80 Hz, 12 dB/octave
<b>OPEN CIRCUIT SENSITIVITY</b>	-36 dB (15.8 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b>	100 ohms
<b>MAXIMUM INPUT SOUND LEVEL</b>	149 dB SPL, 1 kHz at 1% T.H.D.; 159 dB SPL, with 10 dB pad (nominal)
<b>NOISE<sup>1</sup></b>	17 dB SPL
<b>DYNAMIC RANGE (typical)</b>	132 dB, 1 kHz at Max SPL
<b>SIGNAL-TO-NOISE RATIO<sup>1</sup></b>	77 dB, 1 kHz at 1 Pa*
<b>PHANTOM POWER REQUIREMENTS</b>	48V DC, 4.2 mA typical
<b>SWITCHES</b>	Pattern selection; flat, roll-off; 10 dB pad (nominal)
<b>WEIGHT (less accessories)</b>	18.0 oz (510 g)
<b>DIMENSIONS</b>	7.40" (188.0 mm) long, 2.10" (53.4 mm) maximum body diameter
<b>OUTPUT CONNECTOR</b>	Integral 3-pin XLRM-type
<b>ACCESSORIES FURNISHED</b>	AT8449 shock mount for 5/8"-27 threaded stands; microphone dust cover; protective carrying case

\*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.



Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224  
 Audio-Technica Limited, Old Lane, Leeds LS11 8AG England  
[www.audio-technica.com](http://www.audio-technica.com)