

# AT2050 MULTI-PATTERN CONDENSER MICROPHONE



- Three switchable polar patterns: omni, cardioid, figure-of-eight
- Dual-diaphragm capsule design maintains precise polar pattern definition across the full frequency range of the microphone
- Switchable 80 Hz high-pass filter and 10 dB pad
- State-of-the-art surface-mount electronics ensure compliance with A-T's stringent consistency and reliability standards
- Dual large diaphragms are gold-vaporized and aged to achieve optimum characteristics over years of use

The AT2050 is intended for use in professional applications where remote power is available. It requires 11V to 52V 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 or 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 hi-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.

## AT2050 SPECIFICATIONS\*

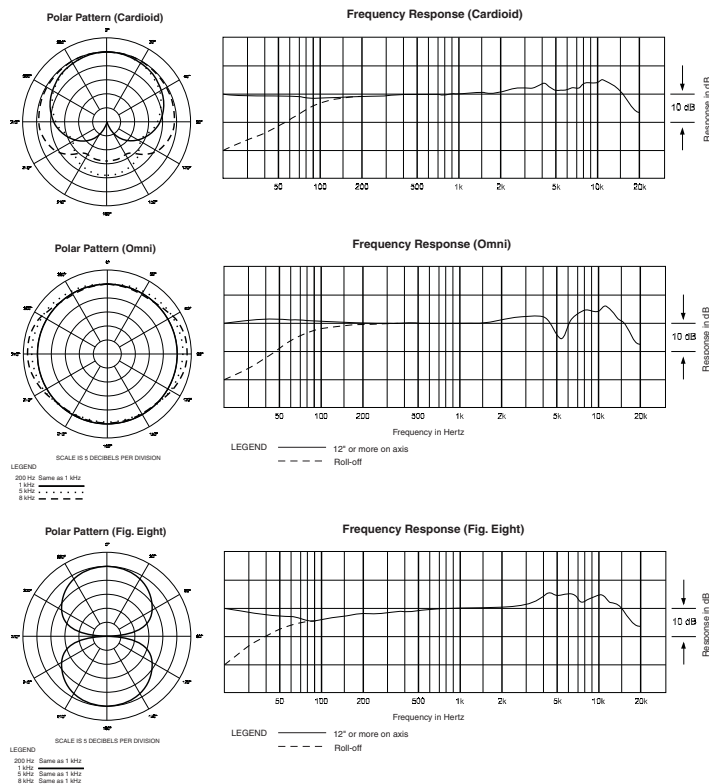
<b>ELEMENT</b>	Externally polarized (DC Bias) condenser
<b>POLAR PATTERNS</b>	Cardioid, Omnidirectional, Figure-of-Eight
<b>FREQUENCY RESPONSE</b>	20-20,000 Hz
<b>LOW FREQUENCY ROLL-OFF</b>	80 Hz, 12 dB/octave
<b>OPEN CIRCUIT SENSITIVITY</b>	-42 dB (7.9 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b>	120 ohms
<b>MAXIMUM 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>	11-52V DC, 4.7 mA typical
<b>SWITCHES</b>	Pattern selection; Flat, roll-off; 10 dB pad (nominal)
<b>WEIGHT</b>	412 g (14.5 oz)
<b>DIMENSIONS</b>	170.0 mm (6.69") long, 52.0 mm (2.05") maximum body diameter
<b>OUTPUT CONNECTOR</b>	Integral 3-pin XLRM-type
<b>ACCESSORIES FURNISHED</b>	AT8458 Shock mount 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.



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