

# AT4051b CARDIOID CONDENSER MICROPHONE

(4°) S E R I E S



- Specially engineered to meet the most critical acoustic requirements of professional recording, broadcast and sound reinforcement
- Direct-coupled, balanced output results in a clean signal even under high-output conditions
- Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients
- Switchable 80 Hz hi-pass filter and 10 dB pad
- Rugged turned-brass microphone housing for enduring dependability
- State-of-the-art design and manufacturing techniques ensure compliance with A-T's stringent consistency and reliability standards

The AT4051b 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 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.

The AT4051b consists of two modular subassemblies: an AT4900b-48 body and an AT4051b-EL head capsule (both available separately). Additional interchangeable capsules are available in omnidirectional (AT4049b-EL) and hypercardioid (AT4053b-EL).

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.

## AT4051b SPECIFICATIONS†

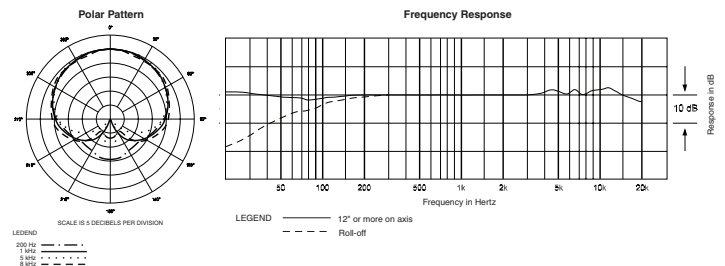
<b>ELEMENT</b>	Externally polarized (DC bias) capacitor
<b>POLAR PATTERN</b>	Cardioid
<b>FREQUENCY RESPONSE</b>	20-20,000 Hz
<b>LOW FREQUENCY ROLL-OFF</b>	80 Hz, 12 dB/octave
<b>OPEN CIRCUIT SENSITIVITY</b>	-34 dB (19.9 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b>	50 ohms
<b>MAXIMUM INPUT SOUND LEVEL</b>	145 dB SPL, 1 kHz at 1% T.H.D.; 155 dB SPL, with 10 dB pad (nominal)
<b>NOISE†</b>	16 dB SPL
<b>DYNAMIC RANGE (typical)</b>	129 dB, 1 kHz at Max SPL
<b>SIGNAL-TO-NOISE RATIO†</b>	78 dB, 1 kHz at 1 Pa*
<b>PHANTOM POWER REQUIREMENTS</b>	48V DC, 4.8 mA typical
<b>SWITCHES</b>	Flat, roll-off; 10 dB pad (nominal)
<b>WEIGHT (less accessories)</b>	126 g (4.4 oz)
<b>DIMENSIONS</b>	155.0 mm (6.10") long, 21.0 mm (0.83") maximum body diameter
<b>OUTPUT CONNECTOR</b>	Integral 3-pin XLRM-type
<b>ACCESSORIES FURNISHED</b>	AT8405a stand clamp for 5/8"-27 threaded stands; windscreens; 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

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

Specifications are subject to change without notice.



 **audio-technica**

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