

# AT4053b

(40) SERIES

## HYPERCARDIOID CONDENSER MICROPHONE



- 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 AT4053b 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.

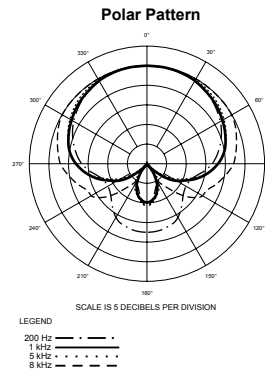
An integral 80 Hz hi-pass filter provides easy switching from a flat frequency response to a low-end roll-off. The high-pass position reduces the microphone's sensitivity to popping in close vocal use. It also reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.),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

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

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

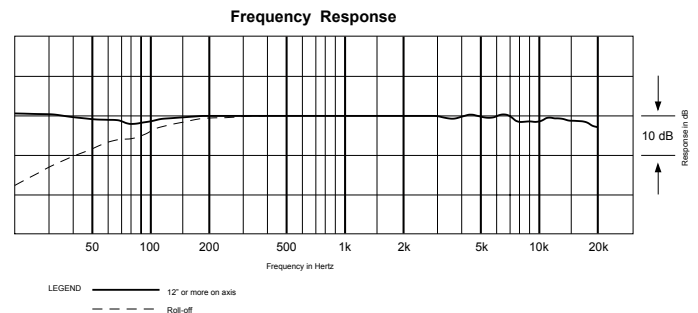
### SPECIFICATIONS

ELEMENT	Externally polarized (DC bias) capacitor
POLAR PATTERN	Hypercardioid
FREQUENCY RESPONSE	20-20,000 Hz
OPEN CIRCUIT SENSITIVITY	-34 dB (19.9 mV) re 1V at 1 Pa
IMPEDANCE	50 ohms
MAXIMUM INPUT SOUND LEVEL	145 dB SPL, 1 kHz at 1% T.H.D. 155 dB SPL, with 10 dB pad (nominal)
NOISE	16 dB SPL
DYNAMIC RANGE (typical)	129 dB, 1 kHz at Max SPL
SIGNAL-TO-NOISE RATIO	78 dB, 1 kHz at 1Pa
LOW FREQUENCY ROLL-OFF	80 Hz, 12 dB/octave
PHANTOM POWER REQUIREMENTS	48V DC, 4.8 mA typical
SWITCH	Flat, roll-off; 10 dB pad (nominal)
WEIGHT (less accessories)	127 g
DIMENSIONS	155.0 mm - long, 21.0 mm - body diameter
OUTPUT CONNECTOR	Integral 3-pin XLRM-type
ACCESSORIES FURNISHED	AT8405a snap-in clamp for 5/8"-27 threaded stand; windscreen; protective carrying case



#### Optional Accessories:

- AT4049b-EL omnidirectional microphone capsule.
- AT4051b-EL cardioid microphone capsule.
- AT8106 metal-frame pop filter.
- AT8114 foam windscreen for AT8106 pop filter.
- AT8506 four-channel 48V phantom power supply (AC powered).
- AT8801/EU single-channel 48V phantom power supply (AC powered).



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## 超心形指向性电容话筒



- 特别按专业录音、广播和增强音色的重要要求而设计。
- 直接偶合式平衡输出，在高输出情况下仍有清晰的音色表现。
- 无变压器输出电路，可减少低频失真和提高瞬间响应的清晰度。
- 设有80Hz高通滤波及10dB衰减开关。
- 经消光加工铜制外壳，结实而具耐久性。
- 以鐵三角的电子技术和工艺水平制造，保持一定的严密标准和可靠性。

AT4053b需要使用48V幻象供电工作，可使用专业调音台上的幻象电源，也可以使用鐵三角的AT8801单通道或AT8506四通道幻象电源供电器作独立供电

低阻抗的平衡音频输出，话筒音频信号最终以卡农公头的2号及3号针脚输出，而1号针脚则为地线(屏蔽)连接。输出相位将以正相位电平设于2号针脚上。

为避免出现相位相互抵消而失真的情况，所有话筒连接时，接线必需以1-1, 2-2, 3-3型式把针脚连接。

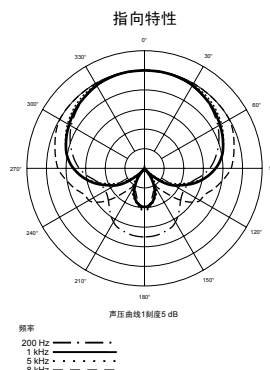
内置高通滤波电路，可轻易由平直的频率响应，开启为于80Hz以下衰减的收音效果，应用高通滤波器可减低收音环境中低频噪声(如外间汽车引擎声，空调系统的风声等)，房间中的回声及机械性的震动声。

AT4053b 超心形指向性话筒以 AT4053b-EL 收音头及 AT4900b-48 筒身组合。可自由转换收音头：AT4049b-EL (全方向指向性) 或 AT4051b-EL (心形指向性)。

把话筒暴露于高温中可能导致输出电平逐渐及永久性减弱，应避免将话筒留在日晒的地方或长时间置于温度超过43°C的地方，而极高湿度也应避免。

### 技术指标

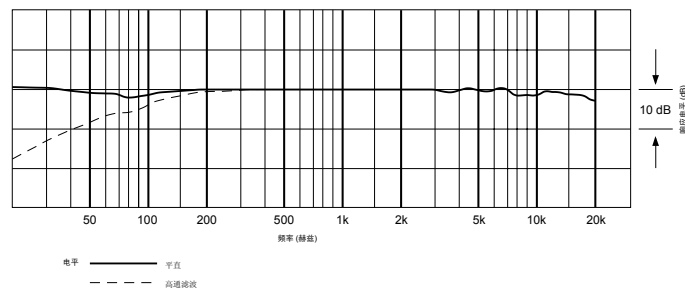
收音头	直流偏压型电容式
指向特性	超心形指向性
频率响应	20-20,000 Hz
开通灵敏度	-34 dB (19.9 mV) 以 1V 于 1 Pa
输出阻抗	50 欧姆
最大承受声压	145 dB, 1 kHz 于 1% T.H.D. 155 dB, 于10dB衰减
噪声	16 dB 声压
动态范围 (典型)	129 dB, 1 kHz 于最高声压
讯噪比	78 dB, 1 kHz 于 1Pa
高通滤波	80 Hz, 12 dB/octave
幻象供电	直流 48V, 耗电 4.8 mA 典型
开关	平直 / 高通滤波; 10dB 衰减
重量	127 克
外形尺寸	155.0 mm - 长度, 21.0 mm - 直径
输出连接器	内置 XLRM-3针卡农公头
附属品	AT8405a 1/8"-27接头转轴式支架, 保護袋, 海棉防风罩。



### 选择配件:

- AT4049b-EL 全指向性收音头。
- AT4051b-EL 心形指向性收音头。
- AT8106 金属防喷气保护网。
- AT8114 球形海棉防风罩 (配AT8106)。
- AT8506 四通48V幻象供电器 (交流供电)。
- AT8801/EU 单通道48V幻象供电器 (交流供电)。

### 频率特性



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