AT4041

audio-technica

Cardioid Condenser End-Address Microphone

40 series studio microphones

Features

- **Specially engineered to meet the most critical acoustic requirements of professional recording, broadcast and sound reinforcement**
- **Smooth, extended frequency response with a slight rise occurring in the high-frequency region**
- **Low-mass diaphragm improves transient response, increases response bandwidth and reduces handling and mechanical noise transfer**
- **Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients**
- **Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source**
- **Rugged turned-brass microphone housing for enduring dependability**
- **Switchable 80Hz high-pass filter minimizes pickup of undesired low-frequency sounds**
- **State-of-the-art design and manufacturing techniques ensure compliance with A-T's stringent consistency and reliability standards**

Description

The AT4041 is a fixed-charge condenser microphone with a cardioid polar pattern. It is designed to meet the demands of critical studio and live 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 and reducing pickup of unwanted sounds.

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

A switch permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass filter) to help control undesired ambient noise.

The microphone is enclosed in a rugged housing. The included AT8405a stand clamp permits mounting on any microphone stand with $^{5}/_{8}$"-27 threads. A windscreen and a protective carrying case are also included.

Operation and Maintenance

The AT4041 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.

An integral 80 Hz high-pass filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations. To engage the high-pass filter, slide the switch toward the "bent" line.

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.

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance and a frequency response of 20 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 145 dB with a dynamic range of 121 dB. Nominal open-circuit output voltage shall be 15.8 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 include a switch that permits choice of flat response or 80 Hz low-frequency roll-off.

The microphone shall be 159.5 mm (6.28") long and have a diameter of 21.0 mm (0.83"). Weight shall be 120 grams (4.2 oz). The microphone shall include a stand clamp, a windscreen and a protective carrying case.

The Audio-Technica AT4041 is specified.

AT4041

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 12 dB/octave
Open circuit sensitivity	–36 dB (15.8 mV) re 1V at 1 Pa
Impedance	100 ohms
Maximum input sound level	145 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	121 dB, 1 kHz at Max SPL
Signal-to-noise ratio[1]	70 dB, 1 kHz at 1 Pa
Phantom power requirements	48V DC, 3.2 mA typical
Switch	Flat, roll-off
Weight	120 g (4.2 oz)
Dimensions	159.5 mm (6.28") long, 21.0 mm (0.83") diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	S1
Accessories furnished	AT8405a stand clamp for $^{5}/_{8}$"-27 threaded stands; AT8159 windscreen; protective carrying case

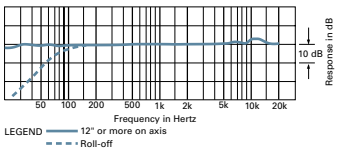
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL

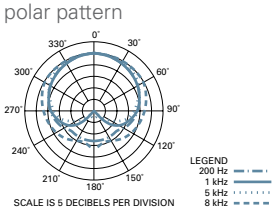
[1] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 20–20,000 Hz



polar pattern



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