



### Features

- **Audio-Technica's premier studio condenser vocal microphone**
- **Extremely musical high-fidelity performance, with profound realism and depth, presence and purity of sound**
- **Four rectangular diaphragms (2 micron) function together as Audio-Technica's largest-ever element, providing combined surface area twice that of a standard one-inch circular diaphragm**
- **Exceptionally low noise and wide dynamic range ideal for studio vocals**
- **Discrete components carefully selected for optimized capsule performance**
- **High-SPL capability and extended frequency response**
- **Hand assembled and inspected for 100% quality control**
- **Advanced internal shock mounting decouples the capsule from the microphone body**
- **Elegant, durable housing of aluminum and brass**
- **Included advanced-design custom AT8480 shock mount provides superior isolation**
- **Custom hard-shell carrying case with die-cut foam compartments offers protection during storage and transport**

### Description

The AT5040 is a large-diaphragm side-address electret condenser vocal microphone with a cardioid polar pattern. It is engineered to meet the most critical acoustic requirements of professional recording. Designed as a first-choice vocal microphone, the AT5040 features an extremely smooth top end with controlled sibilance. Large-diaphragm characteristics and fast transient response also make it ideal for recording acoustic instruments such as piano, guitar, strings and saxophone.

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 in controlling feedback, reducing pickup of unwanted sounds and providing isolation between performers.

The AT5040 features a four-part rectangular element; four matched diaphragms function together (with outputs proprietarily summed) as a single high-performance element offering large surface area without the increased weight and decreased transient response that are the expected limitations of diaphragm size. Each AT5040 diaphragm is carefully engineered to improve transient response and increase response bandwidth. Each is 2 microns thick, vapor-deposited gold and aged so that the optimum characteristics remain constant over years of use.

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

The microphone is enclosed in a rugged housing. The included AT8480 shock mount provides superior isolation and permits mounting on any microphone stand with  $\frac{5}{8}$ "-27 threads. A custom hard-shell carrying case is also included.

### Operation & Maintenance

The AT5040 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 Audio-Technica logo is on the front of the microphone. Position this side of the microphone toward the sound source.

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.

### How to use the AT8480 shock mount

Before placing the microphone into the AT8480 shock mount, make certain that the locking mechanism on the top of the shock mount is in the unlocked position.

To position the AT5040 into the AT8480 shock mount, insert the microphone directly into the shock mount's front opening with the AT5040 Audio-Technica logo facing outward and the microphone body vertically centered in the shock mount clamps. Firmly press the AT5040 inward until you hear a click and the microphone feels snug in the shock mount. Finally, secure the microphone by turning the lever on the top of the shock mount to the locked position.

To remove, first turn the lever on the top of the shock mount toward the unlocked position. Next, pull the AT5040 directly outward. A slight twisting motion can aid in removing the microphone from the shock mount.

### Architect's and Engineer's Specifications

The microphone shall be a large-diaphragm side-address 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 142 dB with a dynamic range of 137 dB. Nominal open-circuit output voltage shall be 56.2 mV at 1V, 1 Pascal. Output shall be low impedance balanced (50 ohms).

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

The microphone shall be 165.3 mm (6.51") long and have a maximum body diameter of 57.0 mm (2.24"). Weight shall be 582 grams (20.5 oz). The microphone shall include a shock mount and a protective carrying case.

The Audio-Technica AT5040 is specified.

## Specifications

<b>Element</b>	Fixed-charge back plate, permanently polarized condenser
<b>Polar pattern</b>	Cardioid
<b>Frequency response</b>	20 – 20,000 Hz
<b>Open circuit sensitivity</b>	-25 dB (56.2 mV) re 1V at 1 Pa
<b>Impedance</b>	50 ohms
<b>Maximum input sound level</b>	142 dB SPL, 1 kHz at 1% T.H.D.
<b>Noise<sup>1</sup></b>	5 dB SPL
<b>Dynamic range (typical)</b>	137 dB, 1 kHz at Max SPL
<b>Signal-to-noise ratio<sup>1</sup></b>	89 dB, 1 kHz at 1 Pa
<b>Phantom power requirements</b>	48V DC, 3.8 mA typical
<b>Weight</b>	582 g (20.5 oz)
<b>Dimensions</b>	165.3 mm (6.51") long, 57.0 mm (2.24") maximum body diameter
<b>Output connector</b>	Integral 3-pin XLRM-type
<b>Audio-Technica case style</b>	R10
<b>Accessories furnished</b>	AT8480 shock mount for 5/8"-27 threaded stands; protective carrying case

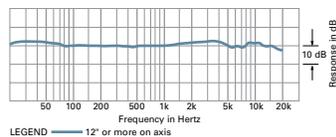
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

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.

frequency response: 20–20,000 Hz



polar pattern

