AT2020

audio-technica

Cardioid Condenser Side-Address Microphone

20 series studio microphones

Features

- **Designed for project/home-studio applications**
- **High SPL handling and wide dynamic range provide unmatched versatility**
- **Custom-engineered low-mass diaphragm provides extended frequency response and superior transient response**
- **Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source**
- **Rugged design and construction for reliable performance**
- **Pivoting, threaded stand mount attaches securely for easy and precise placement of the microphone**

Description

The AT2020 is a side-address fixed-charge condenser microphone with a cardioid polar pattern. It is designed for project/home studio 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 in controlling feedback, reducing pickup of unwanted sounds and providing isolation between performers.

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

The microphone is enclosed in a rugged housing. The included stand mount permits mounting on any microphone stand with 5/8"-27 threads. A soft protective pouch is also included.

Operation and Maintenance

The AT2020 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 emblem 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.

Architect's and Engineer's Specifications

The microphone shall be a 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 144 dB with a dynamic range of 124 dB. Nominal open-circuit output voltage shall be 14.1 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 be 162.0 mm (6.38") long and have a maximum body diameter of 52.0 mm (2.05"). Weight shall be 345 grams (12.1 oz). The microphone shall include a stand mount and a soft protective pouch.

The Audio-Technica AT2020 is specified.

AT2020

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	20-20,000 Hz
Open circuit sensitivity	–37 dB (14.1 mV) re 1V at 1 Pa
Impedance	100 ohms
Maximum input sound level	144 dB SPL, 1 kHz at 1% T.H.D.
Noise[1]	20 dB SPL
Dynamic range (typical)	124 dB, 1 kHz at Max SPL
Signal-to-noise ratio[1]	74 dB, 1 kHz at 1 Pa
Phantom power requirements	48V DC, 2 mA typical
Weight	345 g (12.1 oz)
Dimensions	162.0 mm (6.38") long, 52.0 mm (2.05") maximum body diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	R7
Accessories furnished	Stand mount for $^5/_8$"-27 threaded stands; $^5/_8$"-27 to $^3/_8$"-16 threaded adapter; soft protective pouch

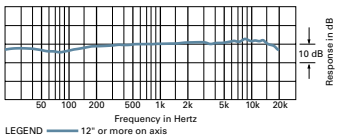
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

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

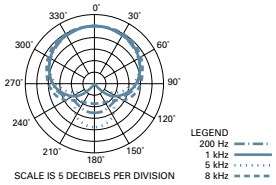
[1] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 20–20,000 Hz



polar pattern



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