ATM650

audio-technica

Hypercardioid Dynamic Instrument Microphone

artist series live sound microphones

Features

- **Tailored response for musical instrument pickup—guitar cabinets, snare and other percussion**
- **Hi-ENERGY® neodymium magnet for improved output and transient response**
- **Special dual-wall floating construction reduces handling noise and assures consistent performance from mic to mic**
- **Hypercardioid polar pattern provides maximum feedback rejection and isolation of desired sound source**
- **Multi-stage flat-grille design is engineered to enable easy placement as close as possible to sound source**
- **Rugged all-metal design and construction for years of trouble-free use**
- **Corrosion-resistant contacts from gold-plated XLRM-type connector**
- **Quiet-Flex™ stand clamp provides silent, flexible microphone positioning**

Description

The ATM650 is a dynamic microphone with a hypercardioid polar pattern. It is designed specifically for musical instrument pickup in the studio and on stage.

The hypercardioid 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.

The microphone is enclosed in a rugged housing with a multi-stage flat-grille design. The included AT8470 Quiet-Flex™ stand clamp permits mounting on any microphone stand with $^{5}/_{8}$"-27 threads. A soft protective pouch is also included.

Operation and Maintenance

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.

When using the microphone in settings with a stage monitor speaker, the speaker should be located 135° off axis (45° off the rear of the microphone). This placement, in conjunction with the microphone's uniform hypercardioid pickup pattern, will virtually eliminate the possibility of undesired audio feedback.

Take care to keep foreign particles from entering the windscreen. An accumulation of iron or steel filings on the diaphragm, and/or foreign material in the windscreen's mesh surface, can degrade performance.

Note: Remove the rubber sleeve at the base of the microphone handle to use the AT8471 isolation stand clamp (not included) for more secure, permanent installation.

Architect's and Engineer's Specifications

The microphone shall be a moving coil dynamic designed for handheld or stand use. It shall have a hypercardioid polar pattern with a uniform 100° angle of acceptance and a frequency response of 80 Hz to 17,000 Hz. Nominal open-circuit output voltage shall be 1.5 mV at 1V, 1 Pascal. Output shall be low impedance balanced (300 ohms).

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

The microphone shall be 164.2 mm (6.46") long and have a head diameter of 38.8 mm (1.53"). Weight shall be 279 grams (9.8 oz). The microphone shall include a stand clamp and a soft protective pouch.

The Audio-Technica ATM650 is specified.

ATM650

Specifications

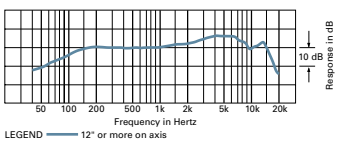
Element	Dynamic
Polar pattern	Hypercardioid
Frequency response	80-17,000 Hz
Open circuit sensitivity	–56 dB (1.5 mV) re 1V at 1 Pa
Impedance	300 ohms
Weight	279 g (9.8 oz)
Dimensions	164.2 mm (6.46") long, 38.8 mm (1.53") head diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	T5
Accessories furnished	AT8470 Quiet-Flex™ stand clamp 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.

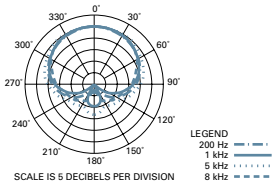
1 Pascal = 10 dynes/cm^2 = 10 microbars = 94 dB SPL

Specifications are subject to change without notice.

frequency response: 80–17,000 Hz



polar pattern



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