AT875R

audio-technica

broadcast & production microphones

Line + Gradient Condenser Microphone

Features

- **Designed for video production and broadcast (ENG/EFP) audio acquisition**
- **Extremely short length and light weight ideal for use with compact digital cameras**
- **Provides the narrow acceptance angle desirable for long-distance sound pickup**
- **Smooth, natural-sounding on-axis audio quality**
- **Tailored response minimizes camera and handling noise**
- **Rugged design and construction for reliable performance**

Description

The AT875R is a fixed-charge condenser microphone with a line + gradient polar pattern. It is designed for video production and broadcast (ENG/EFP) audio acquisition.

The microphone requires 11V to 52V phantom power for operation.

The microphone's highly directional polar pattern provides a narrow acceptance angle along with crisp, intelligible audio reproduction desirable for long-distance sound pickup.

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

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, two o-rings and a soft protective pouch are also included.

Operation and Maintenance

The AT875R requires 11V to 52V 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.

The high sensitivity of the microphone assures useful output and an excellent match to most input sources. In some cases, however, an attenuator may be required between the microphone and preamplifier to avoid overloading sensitive input stages.

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.

Note: To use the microphone with a camera-mount microphone holder whose diameter is too large to secure the microphone, slide the two supplied o-rings onto the microphone handle, spaced so that one fits just in front of, and the other fits just behind, the rubber nubs inside the microphone holder. When the top of the microphone holder is closed and tightened down, the o-rings should hold the microphone securely in place.

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser. It shall have a line + gradient polar pattern and a frequency response of 90 Hz to 20,000 Hz. The microphone shall operate from an external 11V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 127 dB with a dynamic range of 107 dB. Nominal open circuit output voltage shall be 31.6 mV at 1 V, 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 175.0 mm (6.89") long and have a diameter of 21.0 mm (0.83"). Weight shall be 80 grams (2.8 oz). The microphone shall include a stand clamp, a windscreen, two o-rings and a soft protective pouch.

The Audio-Technica AT875R is specified.

AT875R

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Line + gradient
Frequency response	90-20,000 Hz
Open circuit sensitivity	–30 dB (31.6 mV) re 1V at 1 Pa
Impedance	100 ohms
Maximum input sound level	127 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	107 dB, 1 kHz at Max SPL
Signal-to-noise ratio[1]	74 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical
Weight	80 g (2.8 oz)
Dimensions	175.0 mm (6.89") long, 21.0 mm (0.83") diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	SG4
Accessories furnished	AT8405a stand clamp for $^5/_8$"-27 threaded stands; $^5/_8$"-27 to $^3/_8$"-16 threaded adapter; windscreen; two o-rings: soft protective pouch

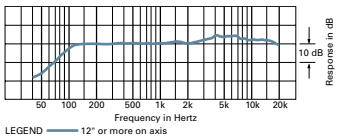
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

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

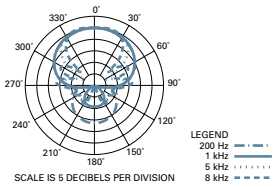
[1] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

frequency response: 90–20,000 Hz



polar pattern



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Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224
Audio-Technica Limited, Old Lane, Leeds LS11 8AG England