

# AE3300

## Cardioid Condenser Handheld Microphone



artist elite® live sound microphones



### Features

- **Exceptional performance for exceptional performers**
- **Same element as the classic AT4033 studio microphone**
- **Well-tempered polar pattern with outstanding rejection qualities**
- **Superior anti-shock engineering ensures low handling noise and quiet performance**
- **High-quality double-sided PCB uses surface-mount components. Extensive grounding plane and attention to best-practice grounding methods minimize electrical noise**
- **Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source**
- **Multi-stage grille design offers excellent protection against plosives and sibilance without compromising high-frequency clarity**
- **Robust all-metal design for enduring dependability on the road**
- **Quiet-Flex™ stand clamp provides silent, flexible microphone positioning**
- **Integral 80 Hz high-pass filter switch and 10 dB pad switch**

### Description

The AE3300 is a handheld condenser microphone with a cardioid polar pattern. It is designed specifically for close-up vocal use in professional live-sound and studio applications.

The microphone requires 11V to 52V 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, 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 equipped with a switchable 10 dB pad and a switch that permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass filter).

The microphone is enclosed in a rugged housing. Its multi-stage grille design offers excellent protection against plosives and sibilance without compromising high-frequency clarity. The included AT8470 Quiet-Flex™ stand clamp permits mounting on any microphone stand with  $\frac{5}{8}$ "-27 threads. A soft protective pouch is also included.

### Operation and Maintenance

The AE3300 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.

When using the microphone in settings with a stage monitor speaker, the speaker should be located 180° off axis (at rear of the microphone). This placement, in conjunction with the microphone's uniform cardioid pickup pattern, will virtually eliminate the possibility of undesired audio feedback.

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 filter, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the "bent" line.

The microphone is also equipped with a switchable 10 dB pad that lowers the microphone's sensitivity, thus providing higher SPL capability for flexible use with a wide range of users and system configurations. To engage the 10 dB pad, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the -10 position.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for long periods of time. Extremely high humidity should also be avoided.

### Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for handheld or stand use. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance and a frequency response of 30 Hz to 18,000 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 147 dB (157 dB with 10 dB pad) with a dynamic range of 128 dB. Nominal open-circuit output voltage shall be 7.9 mV at 1V, 1 Pascal. Output shall be low impedance balanced (150 ohms).

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

The microphone shall be equipped with a switchable 10 dB pad and a switch that permits choice of flat response or 80 Hz low-frequency roll-off.

The microphone shall be 179.0 mm (7.05") long and have a head diameter of 50.0 mm (1.97"). Weight shall be 300 g (10.6 oz). The microphone shall include a stand clamp and a soft protective pouch.

The Audio-Technica AE3300 is specified.

**Specifications**

<b>Element</b>	Fixed-charge back plate, permanently polarized condenser
<b>Polar pattern</b>	Cardioid
<b>Frequency response</b>	30-18,000 Hz
<b>Low frequency roll-off</b>	80 Hz, 12 dB/octave
<b>Open circuit sensitivity</b>	-42 dB (7.9 mV) re 1V at 1 Pa
<b>Impedance</b>	150 ohms
<b>Maximum input sound level</b>	147 dB SPL, 1 kHz at 1% T.H.D.; 157 dB SPL, with 10 dB pad (nominal)
<b>Noise<sup>1</sup></b>	19 dB SPL
<b>Dynamic range (typical)</b>	128 dB, 1 kHz at Max SPL
<b>Signal-to-noise ratio<sup>1</sup></b>	75 dB, 1 kHz at 1 Pa
<b>Phantom power requirements</b>	11-52V DC, 3 mA typical
<b>Switches</b>	Flat, roll-off; 10 dB pad (nominal)
<b>Weight</b>	300 g (10.6 oz)
<b>Dimensions</b>	179.0 mm (7.05") long, 50.0 mm (1.97") head diameter
<b>Output connector</b>	Integral 3-pin XLRM-type
<b>Audio-Technica case style</b>	T4
<b>Accessories furnished</b>	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.

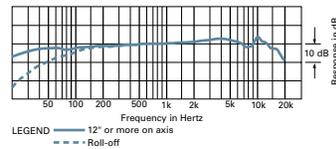
1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

<sup>1</sup> Typical, A-weighted, using Audio Precision System One.

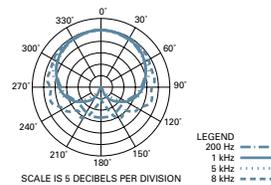
Specifications are subject to change without notice.



frequency response: 30–18,000 Hz



polar pattern



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