



DESCRIPTION

The ES973 is a handheld condenser microphone with a hypercardioid polar pattern. It is designed for quality sound reinforcement, professional recording and broadcasting.

The ES973 is equipped with UniGuard® RFI-shielding technology, which offers outstanding rejection of radio frequency interference (RFI). The microphone is RoHS compliant – free from all substances specified in the EU directive on hazardous substances.

The microphone's hypercardioid polar pattern provides a 100° angle of acceptance. Additional interchangeable elements with cardioid (120°) and omnidirectional (360°) pickup patterns are available.

The ES973 requires 11V to 52V phantom power for operation. It 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 UniSteep® filter).

The microphone is enclosed in a rugged housing with a low-reflectance black finish. It features an XLRM-type connector at its base. In addition to an AT8405a stand clamp, the microphone is furnished with a foam windscreen and a soft protective pouch.

INSTALLATION AND OPERATION

The ES973 is a completely self-contained unit with an integral 3-pin XLRM-type output connector. The microphone requires 11-52V DC phantom power to operate.

Output is low impedance balanced. The output connector mates with XLRF-type cable connectors. The balanced signal appears across Pins 2 and 3, while the ground (shield) connection is Pin 1. Output is phased so that positive acoustic pressure produces positive voltage at Pin 2, in accordance with industry convention.

To avoid phase cancellation and poor sound, all mic cables must be wired consistently: Pin 1-to-Pin 1, etc.

An integral 80 Hz high-pass UniSteep® 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 UniSteep® filter, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the “bent” line.

The ES973 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.

While a modern condenser microphone is not unduly sensitive to the environment, temperature extremes can be harmful. Exposure to high temperature can result in gradual and permanent reduction of the output level. 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.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

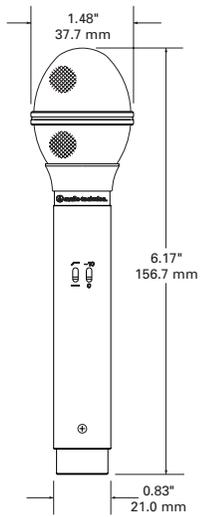
The microphone shall be a fixed-charge condenser designed for handheld or stand use. It shall have a frequency response of 70 Hz to 20,000 Hz and a hypercardioid polar pattern with uniform 100° angle of acceptance. It shall be capable of accepting optional interchangeable elements for additional polar patterns. The microphone shall be 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 UniSteep® filter).

The microphone shall operate from an external 11V to 52V DC phantom power source. It shall offer outstanding rejection of radio frequency interference (RFI). The microphone shall be RoHS compliant.

The microphone shall be capable of handling sound input levels up to 155 dB with a dynamic range of 131 dB. Nominal open-circuit output voltage shall be 8.9 mV at 1 kHz, 1 Pascal. Output shall be low impedance balanced (200 ohms) from an integral 3-pin XLRM-type connector.

The microphone shall be 6.17" (156.7 mm) long and have a head diameter of 1.48" (37.7 mm). The microphone weight shall be 5.6 oz (160 grams). Finish shall be low reflectance black. A stand clamp, foam windscreen and soft protective pouch shall be included with the microphone.

The Audio-Technica ES973 is specified.



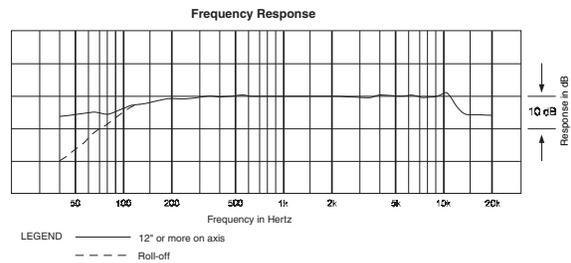
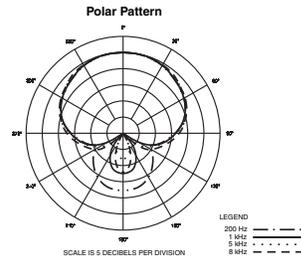
ES973 SPECIFICATIONS†

ELEMENT	Fixed-charge back plate permanently polarized condenser
POLAR PATTERN	Hypercardioid
FREQUENCY RESPONSE	70-20,000 Hz
LOW FREQUENCY ROLL-OFF	80 Hz, 18 dB/octave
OPEN CIRCUIT SENSITIVITY	-41 dB (8.9 mV) re 1V at 1 Pa*
IMPEDANCE	200 ohms
MAXIMUM INPUT SOUND LEVEL	155 dB SPL, 1 kHz at 1% T.H.D.
DYNAMIC RANGE (typical)	131 dB, 1 kHz at Max SPL
SIGNAL-TO-NOISE RATIO¹	70 dB, 1 kHz at 1 Pa*
PHANTOM POWER REQUIREMENTS	11-52V DC, 3 mA typical
SWITCHES	Flat, roll-off; 10 dB pad
WEIGHT	160 g (5.6 oz)
DIMENSIONS	156.7 mm (6.17") long, 37.7 mm (1.48") head diameter
OUTPUT CONNECTOR	Integral 3-pin XLRM-type
OPTIONAL INTERCHANGEABLE ELEMENTS	UE-O omnidirectional (360°); UE-C cardioid (120°)
ACCESSORIES FURNISHED	AT8122 foam windscreen; AT8405a stand clamp for 5/8"-27 threaded stands; 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/cm² = 10 microbars = 94 dB SPL

¹ Typical, A-weighted, using Audio Precision System One. Specifications are subject to change without notice.



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