ES947 *CARDIOID CONDENSER BOUNDARY MICROPHONE*

engineeredsound®

DESCRIPTION

The ES947 is a wide-range condenser microphone with a unidirectional polar pattern. It is designed for unobtrusive table, ceiling or panel-mounted applications for high-quality sound reinforcement, teleconferencing, professional recording, television and other demanding sound pickup applications.

The ES947 is equipped with UniGuard™ RFI-shielding technology, which offers outstanding rejection of radio frequency interference (RFI).

The microphone should be placed on a flat, unobstructed mounting surface. The small-diameter capsule near the boundary eliminates phase distortion and delivers clear, high-output performance.

The microphone requires 11V to 52V phantom power for operation. The microphone is enclosed in a heavy-duty die-cast case and protected by a two-layer steel mesh grille. The low-profile housing has a low-reflectance black finish. The microphone is also available in white as the ES947W. Isolators are included with the microphone for optional mechanical isolation from the mounting surface.

INSTALLATION AND OPERATION

Output is low impedance balanced. 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 mount the ES947 in a ceiling or table top ***without* the isolators, a 13/16" (20.5 mm) diameter hole is required**. To mount the ES947 ***with* the isolators, a 15/16" (23.5 mm) hole is required**. Place the isolators on either side of the hole to achieve mechanical isolation from the mounting surface. The small indented circle on the ES947 bezel indicates the "front" of the microphone.

While a modern fixed-charge 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

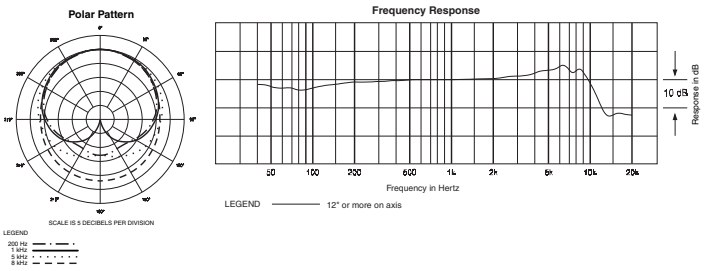
The microphone shall be a fixed-charge condenser designed for use in table, ceiling or panel-mount boundary applications. It shall have a frequency response of 40 Hz to 12,000 Hz and a unidirectional (cardioid in a hemisphere above the mounting surface boundary) polar pattern. It shall incorporate a self-contained power module and require 11-52V DC phantom power to operate. It shall offer outstanding rejection of radio frequency interference (RFI). It shall be capable of handling sound input levels up to 142 dB with a dynamic range of 113 dB. Nominal open circuit output voltage shall be 7.9 mV at 1 kHz, 1 Pascal. Output shall be low impedance balanced (200 ohms) from an integral 3-pin XLRM-type connector.

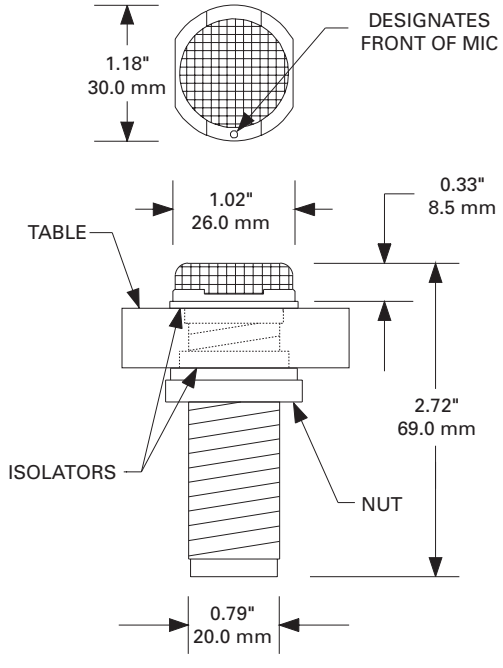
The microphone shall have a maximum diameter of 30.0 mm (1.18") and an overall length of 69.0 mm (2.72"). Weight shall be 64 grams (2.3 oz). The microphone shall be housed in an all-metal case with a two-layer steel mesh grille. Finish shall be low reflectance black [white]. A small indented circle on the bezel shall indicate the "front" of the microphone. Resilient isolators shall be provided for reduction of mechanical noise transfer from the mounting panel. The Audio-Technica ES947 [ES947W] is specified.

ES947 SPECIFICATIONS†

ELEMENT	Fixed-charge back plate permanently polarized condenser
POLAR PATTERN	Unidirectional (Cardioid in hemisphere above mounting surface)
FREQUENCY RESPONSE	40-12,000 Hz
OPEN CIRCUIT SENSITIVITY	–42 dB (7.9 mV) re 1V at 1 Pa*
IMPEDANCE	200 ohms
MAXIMUM INPUT SOUND LEVEL	142 dB SPL, 1 kHz at 1% T.H.D.
DYNAMIC RANGE (typical)	113 dB, 1 kHz at Max SPL
SIGNAL-TO-NOISE RATIO[1]	65 dB, 1 kHz at 1 Pa*
PHANTOM POWER REQUIREMENTS	11-52V DC, 2 mA typical
WEIGHT	64 g (2.3 oz)
DIMENSIONS	30.0 mm (1.18") diameter, 69.0 mm (2.72") length
OUTPUT CONNECTOR	Integral 3-pin XLRM-type
ACCESSORY FURNISHED	One pair isolators

†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.





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