



U841R Omnidirectional Condenser Boundary Microphone



UniPoint® Microphones

Features

- Small-diameter omnidirectional capsule near boundary eliminates phase distortion and delivers clear, high-output performance
- Superior off-axis rejection for maximum gain before feedback
- UniGuard® RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI)
- Self-contained electronics eliminate need for external power module
- Heavy die-cast case and non-slip silicon foam bottom pads minimize coupling of surface vibration to the microphone
- Low-profile design with low-reflectance finish for minimum visibility

Description

The U841R is a wide-range condenser microphone with an omnidirectional polar pattern. It is designed for surface-mount applications such as high-quality sound reinforcement, conferencing, professional recording, television and other demanding sound pickup applications.

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

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

The microphone includes a 7.6 m (25') detachable miniature cable with a special TA3F-type connector that attaches to the microphone and an XLRM-type output connector.

The microphone comes equipped with a soft protective pouch. The microphone's heavy die-cast case and non-slip silicon foam bottom pads minimize coupling of surface vibration to the microphone. The microphone features a low-reflectance black finish.

Installation and Operation

The U841R 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.

The microphone should be placed on a flat, unobstructed mounting surface. The sound source should not be below the plane of the mounting surface.

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.

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Note: Audio-Technica has developed a special RFI-shielding mechanism, which is an integral part of the connectors in the UniPoint® line. If you remove or replace the connector, you may adversely affect the unit's RFI immunity. Audio-Technica offers a crimp tool (ATCT) and RFI shields that enable you to shorten the cable and correctly reinstall the connector while maintaining the highest level of RFI immunity.

Note: Placing any object on a surface (such as a conference table) before its finish is fully cured may result in damage to the finish.

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for use in surface-mount applications. It shall have an omnidirectional polar pattern in the hemisphere above the mounting surface and a frequency response of 40 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 130 dB with a dynamic range of 105 dB. Nominal open-circuit output voltage shall be 17.7 mV at 1V, 1 Pascal. Output shall be low impedance balanced (200 ohms). It shall offer outstanding rejection of radio frequency interference (RFI).

The microphone shall have a 7.6 m (25') detachable miniature cable with a special TA3F-type connector that attaches to the microphone and an XLRM-type output connector.

The microphone shall have a diameter of 65.0 mm (2.56") and a maximum height of 15.1 mm (0.59"). Weight shall be 84 grams (3.0 oz).

The microphone shall be housed in a die-cast case with a perforated steel grille. Finish shall be low-reflectance black. The microphone shall include a soft protective pouch.

The Audio-Technica U841R is specified.

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Omnidirectional in hemisphere above mounting surface
Frequency response	40-20,000 Hz
Open circuit sensitivity	-35 dB (17.7 mV) re 1V at 1 Pa
Impedance	200 ohms
Maximum input sound level	130 dB, 1 kHz at 1% T.H.D.
Dynamic range (typical)	105 dB, 1 kHz at Max SPL
Signal-to-noise ratio ¹	69 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical
Weight	84 g (3.0 oz)
Dimensions	65.0 mm (2.56") diameter, 15.1 mm (0.59") maximum height
Output connector	TB3M-type
Cable	7.6 m (25.0') long, 3.2 mm (0.13") diameter, 2-conductor, shielded cable with TA3F-type and XLRM-type connectors
Accessories furnished	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.

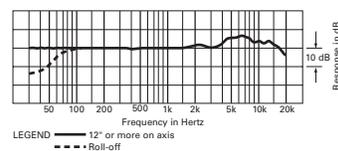
1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

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

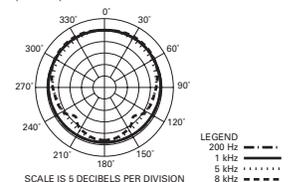
Specifications are subject to change without notice.



frequency response: 40–20,000 Hz



polar pattern



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