ATND971

audio-technica

Cardioid Condenser Boundary Microphone with Dante™ Network Output

network microphones

Features

- **Connects directly to network via Ethernet cable—no soldering or additional cable required**
- **Integrated user switch controls talk/mute in Local mode and triggers Dante-enabled devices in Remote mode**
- **Local or remote control of gain, low-cut UniSteep® filter and red/green LED status indicator**
- **Powered by network PoE**
- **Scalable across Dante's 512 bidirectional audio channels**
- **Touch-sensitive capacitive-type user switch**
- **UniGuard® RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI)**
- **UniSteep® filter provides a steep low-frequency attenuation to improve sound pickup without affecting voice quality**
- **Available interchangeable elements permit angle of acceptance from 100° to 360°**
- **Heavy die-cast case and non-slip silicone foam bottom pads minimize coupling of surface vibration to the microphone**

Description

The ATND971 is a Dante-enabled, wide-range condenser microphone with a cardioid polar pattern. It is designed for surface-mount applications such as high-quality sound reinforcement, conferencing, distance learning and other demanding sound pickup applications.

The microphone features a touch-sensitive capacitive-type user switch with integral red/green LED status indicator. In Local mode the user switch mutes and unmutes the microphone. It can be set to toggle between live and muted audio (toggle on/off), to permit live audio only while the switch is pressed (press to talk), or to mute the audio while the switch is pressed (press to mute). In Remote mode the user switch can be used to trigger functions on compatible Dante-enabled devices, such as a video camera's pan/tilt or a room's lighting preset. While in Remote mode the microphone's audio output is controlled remotely. An integral 80 Hz low-cut 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. A three-position input gain level selector permits trim adjustment to accommodate louder and softer voices.

The gain, low-cut UniSteep® filter and red/green LED status indicator can all be controlled locally or remotely via third-party software.* Recessed buttons on the bottom of the microphone allow user to configure the microphone settings locally. Audio, low-cut and gain settings can be locked in Local mode by pressing and holding the lock button. This lock will prevent end users from adjusting the settings. Default settings for the microphone are as follows: audio toggle on/off (with audio muted at power up), low-cut filter off, +30 dB input gain.

The audio output of the ATND971 can be routed using Audinate's Dante Controller, which is available for download at the Audinate website (www.audinate.com). The site also provides Dante routing and software instructions.

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

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

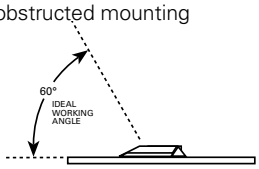
The microphone's heavy die-cast case and non-slip silicone foam bottom pads minimize coupling of surface vibration to the microphone. The microphone includes a soft protective pouch and features a low-reflectance black finish.

Installation and Operation

The ATND971 is powered by network PoE.

The electronics in the microphone take up to 30 seconds to stabilize after power is applied.

The microphone should be placed on a flat, unobstructed mounting surface, with the front of the microphone facing the sound source. The sound source should not be below, or higher than 60° above, the plane of the mounting surface.



The microphone features a touch-sensitive user switch with integral red/green LED status indicator. In Local mode, which is the default, the user switch mutes and unmutes the audio. The Local mode settings for the user switch – as well as the low-cut UniSteep® filter and input gain level – can be adjusted by pressing the appropriate recessed button on the bottom of the microphone.

The user switch has four Local settings (see User Switch Settings and Functions in Local Mode below) that can be chosen by pressing the button beneath "SWITCH FUNCTION" and "DEFAULT MODE." The default setting is TOGGLE ON/OFF (with audio muted at power up). Press the button once to change setting to TOGGLE ON/OFF (with audio on at power up). In both settings the user switch will toggle between mute and unmute – the only difference is the status of the audio when the microphone is turned on. Press the setting button a second time to select MOM. ON (momentary on), wherein the audio will be on only while the user switch is being pressed (press to talk). Press the setting button a third time to select MOM. OFF (momentary off), wherein the audio will be muted while the user switch is being pressed (press to mute). Press the setting button a fourth time to cycle the setting back to the default. The "SWITCH FUNCTION" and "DEFAULT MODE" LEDs will illuminate red or green to indicate the current setting.

Turn the low-cut UniSteep® filter on and off by pressing the button beneath "LOW CUT" on the bottom of the microphone. The filter is off by default. The LED above "LOW CUT" illuminates red when the filter is off, green when it is on.

There are three input gain levels that can be selected: +30 dB (for loudest voices), +40 dB and +50 dB (for softest voices). To adjust the gain level, press the button beneath "GAIN" on the bottom of the microphone. Pressing the button once changes the level from +30 dB to +40 dB, pressing it again changes the level to +50 dB and pressing a third time returns the level to +30 dB. The LED above "GAIN" illuminates green for +30 dB, orange for +40 dB and red for +50 dB.

To lock the Local settings, press and hold the button beneath "LOCK" on the bottom of the microphone. Press and hold again to unlock settings. The LED above "LOCK" will illuminate red when locked and remain unlit when not locked. If a setting button is pressed while the lock is on, the LOCK LED will blink.

All LEDs on the bottom of the microphone will turn off seven seconds after the last button is pressed. Pressing any button will cause the LEDs to relight.

To return the microphone to its default Local settings, press the GAIN and LOW CUT buttons simultaneously.

The microphone can also be controlled remotely via third-party software.* When this software is used it will override local control, causing the audio to remain on and the red/green LED status indicator, low-cut filter and input gain level to be controlled remotely. In Remote mode the microphone's user switch can be programmed to trigger functions on compatible Dante-enabled devices. When in remote mode the Remote LED is illuminated.

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

User Switch Settings and Functions in Local Mode

CONTROL

	User Switch Mode	SWITCH FUNCTION LED Color	DEFAULT MODE LED Color
Default	Toggle (mute on power up)	Green	Red
1st Press	Toggle (talk on power up)	Green	Green
2nd Press	Press to Talk	Red	Red
3rd Press	Press to Mute	Red	Green

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Half-cardioid (cardioid in hemisphere above mounting surface)
Frequency response	30-20,000 Hz
Low frequency roll-off	80 Hz, 18 dB/octave
Maximum input sound level	117 dB SPL, 1 kHz at 1% T.H.D.
Signal-to-noise ratio[1]	68 dB, 1 kHz at 1 Pa
Power requirements	PoE IEEE802.3af standard
Power consumption	1.5W
Switches	Local Mode: Touch-sensitive capacitive-type user switch function: toggle (mute on power up), toggle (talk on power up), momentary on, momentary off; Low-cut filter: flat, roll-off; Gain: +30 dB, +40 dB, +50 dB Remote Mode: Low-cut and Gain via third-party software*
Weight	393 g (13.8 oz)
Dimensions	110.0 mm (4.33") maximum length, 89.5 mm (3.52") maximum width, 35.8 mm (1.41") maximum height
Output connector	RJ45
Dante network	Physical level: standard Ethernet Connector: single RJ45 Cable quality: Shielded CAT5 or CAT6 recommended Transmission speed: 100 Mbps
Optional interchangeable elements	UE-O omnidirectional (360°) UE-H hypercardioid (100°)
Accessory furnished	Soft protective pouch

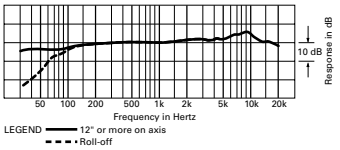
In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

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

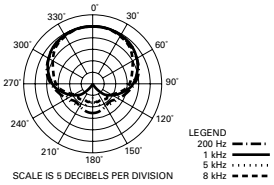
[1] Typical, A-weighted, using Audio Precision System One.

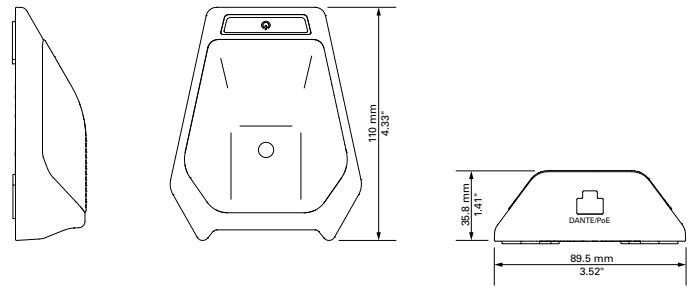
Specifications are subject to change without notice.

frequency response: 30–20,000 Hz



polar pattern





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