ATND1061 Beamforming Ceiling Array Microphone

Network Microphones

Features

- **The ATND1061 beamforming microphone array is an ideal solution for conference rooms, boardrooms, and meeting spaces large and small**
- **Powerful onboard DSP: automix, acoustic echo cancelation, noise reduction, automatic gain control, and 4-band EQ**
- **User-friendly Digital Microphone Manager software easily configures single or multiple ATND1061 microphone settings**
- **Six individual output channels with up to 32 user-defined microphone pickup zones provide the flexibility to cover a wide variety of room sizes and meeting types**
- **Output Channel 1 can be configured with up to 16 user-defined Coverage Zones to ensure coverage of nonpriority or unplanned participants**
- **Output Channels 2–6 can be configured with up to 16 user-defined Priority Zones to ensure priority pickup of participants in known locations**
- **Proprietary voice activity detection (VAD) technology enables the microphone to discern between a voice and unwanted noises such as paper shuffling**
- **Exclusion zones can be set in the software to avoid known sources of unwanted noise (such as air-handling systems)**
- **Two network ports with Single Cable and Split modes to send Dante audio and microphone control data together or separately over category cable (ATND1061DAN)**
- **Mounts flush or on the surface of a drop ceiling or hard ceiling, or in open architecture spaces using VESA mount**
- **UL 2043 compliant for installation in plenum spaces**
- **Includes tile bridge, safety wiring, and mounting hardware and accessories**
- **Low-reflective white finish matches ceiling tiles in most environments**
- **Powered by network PoE**

Description

The ATND1061 Beamforming Ceiling Array Microphone is an ideal solution for conference rooms, boardrooms, and meeting spaces large and small. The microphone may be used singly or in multiples (for larger meeting spaces) to capture every person speaking in a room with clear, natural audio that reduces distracting environmental sounds. A state-of-the-art professional product in a familiar form factor (roughly the size of a wireless access point), the ATND1061 is easy to install, set up, and operate.

Room configuration, zone setup, and other settings are handled through the user-friendly Digital Microphone Manager software application. The ATND1061 has six individual output channels, which, collectively, can be configured with up to 32 user-defined microphone pickup zones, providing the flexibility to cover a wide variety of room sizes and meeting types.

Audio-Technica's proprietary voice activity detection (VAD) technology enables the microphone to discern between a voice and unwanted noises such as paper shuffling. For integrations without external digital signal processing (DSP), the ATND1061 features powerful onboard DSP, including automix, acoustic echo cancellation (AEC), noise reduction, automatic gain control (AGC), and 4-band EQ.

Exclusion zones can be set to avoid known sources of unwanted noise (such as air-handling systems), helping to maximize the effectiveness of the built-in noise-reduction and automatic-mixing functions.

Coverage Zones

Output Channel 1 can be configured with 16 user-defined Coverage Zones, within which a meeting participant may be seated or move about while speaking. The beam will track and keep the microphone focused on the speaker's voice, minimizing any room noise. Only one of the 16 Coverage Zones can be open at a time with the microphone automatically selecting the zone with the strongest signal identified as speech. Coverage Zones can be helpful in picking up either nonpriority or unplanned participants.

Priority Zones

Output Channels 2–6 can be configured with 16 user-defined Priority Zones. Priority Zones ensure that participants in these zones, whether seated or moving about, receive priority over those in Coverage Zones. (However, Priority Zones can also be defined within an existing Coverage Zone.) A maximum of five Priority Zones can be open at a time, with each open zone selecting the strongest signal identified as speech. Priority Zones can be helpful in providing priority for a room's known participant locations.

Across all the output channels, the microphone's 90-degree orthogonal beams are capable of focusing on a particular point in space, preventing the pickup of unwanted noise.

The ATND1061 can be flush- or surface-mounted in a drop ceiling or hard ceiling, or mounted in open architecture spaces via a standard VESA mount. The ATND1061 is UL 2043 compliant for installation in plenum spaces. All mounts, safety wiring, mounting hardware, and accessories are included.

An IR remote is also included to allow users to quickly mute the microphone when a muting function is not available in the room configuration. The IR remote can also be used to recall presets or toggle the Power Save Mode on and off.

The Dante-enabled ATND1061DAN has two network ports, which can be configured to fit any installation requirement. In "Single Cable Mode," Dante audio and microphone control data are sent together over a single standard category cable. In "Split Mode," Dante audio and microphone control data are sent separately over two category cables.

The ATND1061 is powered by network PoE.

Architect's and Engineer's Specifications

The beamforming array microphone, designed for use in conference rooms, boardrooms, and other meeting spaces, shall mount flush or on the surface of a drop ceiling or hard ceiling, or in open architecture spaces using a standard VESA mount. The microphone shall come with surface- and flush-mount adapters, a flush-mount cover, mounting screws and nuts, tile-bridge assembly, installation template, a seismic cable, Euroblock connectors, snap bushings, and a hole cover that can be used when only a single conduit is connected.

The microphone shall have six individual output channels, which, collectively, can be configured with up to 32 user-defined microphone pickup zones. Output Channel 1 shall be configurable with up to 16 user-defined Coverage Zones to ensure coverage of nonpriority or unplanned participants. Output Channels 2–6 shall be configurable with up to 16 user-defined Priority Zones to ensure priority pickup of participants in known locations. The microphone's 90-degree orthogonal beams shall function across all output channels, enabling it to focus on particular points in space and prevent the pickup of unwanted noise. Voice activity detection (VAD) technology shall enable the microphone to discern between a voice and unwanted noises such as paper shuffling.

The microphone shall have an onboard DSP with functions that include automix, acoustic echo cancelation, noise reduction, automatic gain control, and 4-band EQ. The face of the microphone shall be outfitted with a reset button and an IR window to receive mute and other control signals from an included IR remote.

The microphone shall have a frequency response of 60 Hz to 18,000 Hz and be capable of handling sound input levels up to 102 dB.

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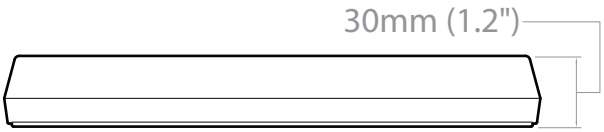
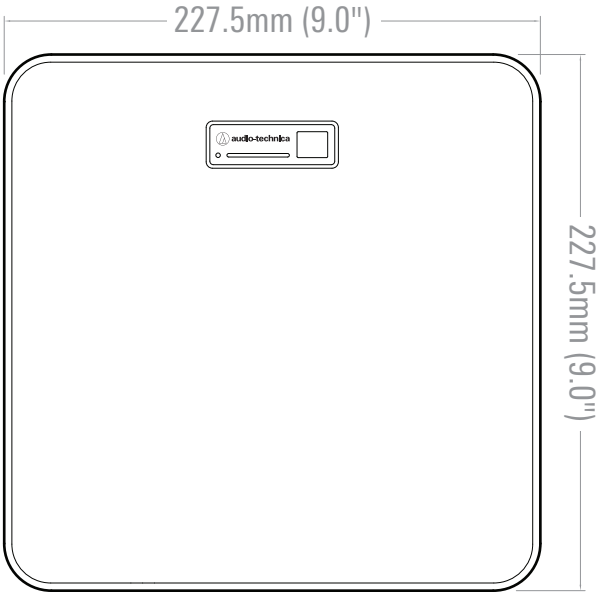
The microphone shall be equipped with a 3-pin Euroblock analog input and 3-pin Euroblock analog output, and a 3-pin Euroblock GPIO. The microphone shall also be available in a model that includes the abovementioned connections along with two RJ-45 Dante network ports for sending audio and microphone control data together or separately over category cable.

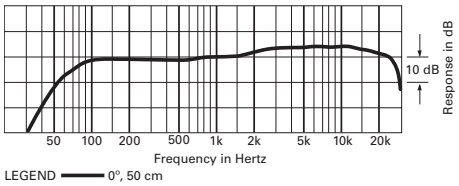
The microphone shall be UL 2043 compliant and have a low-reflective white finish that matches ceiling tiles in most environments. Power shall be provided by network PoE (IEEE 802.3af Class 0).

The Audio-Technica ATND1061 is specified.

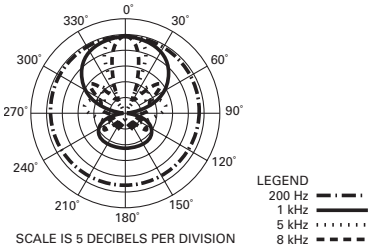




frequency response: 60–18,000 Hz



polar pattern



Specifications

General

Power requirement	PoE (IEEE 802.3af Class 0)
Power consumption	Max.7W
Operation temperature range	0°C to 40°C (32°F to 104°F)
Operation humidity range	25% to 85% (Noncondensing)
Dimensions	227.5mm (9.0") × 227.5mm (9.0") × 30mm (1.2") (W×D×H)
Weight	1250 g (44 oz)

Microphone

Beam width	90°
Polar pattern	Beam pattern
Frequency response	60 Hz to 18,000 Hz
Sensitivity	-8 dBFS (1 kHz, 94 dBSPL)
Dynamic range	89 dB (A-weighted)
Signal to noise ratio	61.5 dB (A-weighted)
Self-noise	25 dBSPL (A-weighted)
Maximum input sound level	102 dBSPL

Analog Audio

Frequency response	20 Hz to 20 kHz (+1.0/-2.0 dB)
Dynamic range	100 dB (A-weighted)
Signal to noise ratio	80 dB (A-weighted)
Headroom	20 dB
Residual noise	-75.8 dBu (A-weighted)
T.H.D	<0.1% (1 kHz, unity)
Analog input	MIC Maximum: -30 dBu MIC Unity: -50 dBu LINE Maximum: +12.2 dBu LINE Unity: -10 dBV, Switchable
Analog output	OUTPUT Maximum: +19.2 dBu OUTPUT Unity: +4 dBu/-10 dBV/-33 dBV, Switchable

Other

Network	Dante: 1 Gbps IP control: 100 Mbps
Digital audio	Sampling rate: 48 kHz Bit depth: 24 bit
Latency	Microphone (CH1 to CH6): 47 msec Microphone (Auto Mix CH): 79 msec Dante: Min. 250 usec, Max. 5 msec
I/O connector	Network/Dante: RJ-45 Analog input: Euroblock 3pin Analog output: Euroblock 3pin GPI: Euroblock 3pin
Phantom power	Analog input: 12 V
Included accessories	IR remote controller; Surface mount adapter; Screw (M4×50mm) × 4; Flush mount adapter; Flush mount cover; Screw (M4×10mm) × 12; Hole cover; Nut × 4; Snap bushing × 2; Tile bridge A × 2; Tile bridge B × 2; Tile bridge C × 4; Seismic cable; Zip tie; Safety belt; Euroblock connector × 3; Installation template

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

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

Specifications are subject to change without notice.

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Audio-Technica Corporation
www.audio-technica.com

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