



## ES954 Hanging Microphone Array



Engineered Sound

### Features

- Ideal, cost-effective solution for huddle rooms, conference rooms and other meeting spaces
- Quad-capsule steerable microphone array designed for use with the ATDM-0604 Digital SmartMixer® and other compatible mixers
- When controlled by a compatible mixer, provides 360° coverage from a potentially limitless number (bound by mixer channel count) of virtual hypercardioid or cardioid pickups that can be steered in 30° increments to clearly capture every person speaking in a room
- Mixer-controlled tilt function provides a vertical steering option to accommodate ceilings of different heights
- Includes Plenum-rated AT8554 Ceiling Mount with RJ45 connectors and push-type wire terminals for simple, secure installation
- Integral, logic-controlled red/green LED ring provides clear indication of mute status
- High-output design with low self-noise delivers strong, natural-sounding vocal reproduction
- Low-reflective white finish matches ceiling tiles in most environments
- Includes two 46 cm (18") breakout cables: RJ45 (female) to three 3-pin Euroblock connector (female); RJ45 (female) to 3-pin Euroblock connector (female) and unterminated LED conductors
- Permanently attached 1.2 m (4') cable with locking grommet enables easy microphone height adjustment
- Included seismic cable secures the AT8554 Ceiling Mount to a drop ceiling grid
- UniGuard® RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI)
- Requires 11V to 52V DC phantom power

### Description

The ES954 Hanging Microphone Array is an ideal, cost-effective solution for huddle rooms, conference rooms and other meeting spaces. Intended primarily for videoconferencing applications, the ES954 may be used singly or in multiples to capture every person speaking in a room, with the total number of channels restricted only by the capacity of the mixer or DSP device controlling the system.

When controlled by the ATDM-0604 Digital SmartMixer®, the four-capsule microphone array provides 360-degree coverage through virtual hypercardioid or cardioid outputs, which can be steered horizontally and tilted vertically. The intuitive graphic interface of the ATDM-0604 enables control of the width and orientation of each virtual polar pattern, which may be steered in 30-degree increments, with a tilt function accommodating differing ceiling heights and users who are sitting or standing.

The ES954 comes with the plenum-rated AT8554 Ceiling Mount with RJ45 connectors and push-type wire terminals for simple, secure installation. The included seismic cable secures the ceiling mount to a drop ceiling grid, and the microphone array connects to the mixer over a pair of standard Cat 5 cables. Two RJ45 breakout cables are provided to input the four channels, plus an LED tally, into the mixer. The microphone's permanently attached 1.2 m (4') cable features a locking grommet for easy height adjustment, and its UniGuard®

RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI). The microphone array has a low-reflective white finish that matches ceiling tiles in most environments, and its integral, logic-controlled 360-degree red/green LED ring provides clear indication of the array's mute status.

The ES954 requires 11V to 52V DC phantom power to operate.

### Architect's and Engineer's Specifications

The four-capsule hanging microphone array shall consist of one omnidirectional microphone (O), one figure-of-eight microphone (L) positioned horizontally at 240°, one figure-of-eight microphone (R) positioned horizontally at 120°, and one figure-of-eight microphone (Z) positioned vertically. Each capsule shall have a frequency response of 20 Hz to 16,000 Hz. The microphone array shall operate from an external 11-52V DC, 23.2 mA (both channels total) phantom power source. The O, L and R capsules shall be capable of handling sound input levels up to 132.5 dB; capsule Z shall be capable of handling sound input levels up to 135 dB. Output shall be low impedance balanced (100 ohms). The output of the microphone shall be a Euroblock connector.

The microphone array shall come with a plenum-rated ceiling-mount box with RJ45 connectors and push-type wire terminals for simple, secure installation to a drop ceiling grid. A seismic cable shall be included to secure the ceiling mount to the grid. The microphone array shall connect to a compatible mixer over a pair of standard Cat 5 cables. Two RJ45 breakout cables shall be provided to input the array's four channels, plus an LED tally, into the mixer.

The microphone array shall be equipped with a permanently attached 1.2 m (4') cable. The cable shall include a locking grommet that allows for the easy adjustment of the microphone's hanging length. The microphone array shall have a low-reflective white finish that matches ceiling tiles in most environments. A logic-controlled 360-degree red/green LED ring shall be integrated into the microphone housing to provide clear indication of the array's mute status.

The microphone array shall require 11V to 52V DC phantom power to operate. The Audio-Technica ES954 is specified.

## Specifications

<b>Element</b>	Fixed-charge back plate, permanently polarized condenser
<b>Polar pattern</b>	Omnidirectional (O)/Figure-of-eight (L/R/Z)
<b>Frequency response</b>	20-16,000 Hz
<b>Open circuit sensitivity</b>	O/L/R: -36 dB (15.85 mV) (0dB=1V/Pa, 1 kHz) Z: -38.5 dB (11.9 mV) (0dB=1V/Pa, 1 kHz)
<b>Impedance</b>	100 ohms
<b>Maximum input sound level</b>	O/L/R: 132.5 dB SPL (1 kHz at 1% THD) Z: 135 dB SPL (1 kHz at 1% THD)
<b>Signal-to-noise ratio<sup>1</sup></b>	O/L/R: 66.5 dB (1 kHz at 1 Pa, A-weighted) Z: 64 dB (1 kHz at 1 Pa, A-weighted)
<b>Phantom power requirements</b>	11-52V DC, 23.2 mA
<b>Weight</b>	Microphone: 160 g (5.6 oz) Ceiling Mount (AT8554): 420 g (14.8 oz)
<b>Dimensions</b>	Microphone: Maximum body diameter: 61.6 mm (2.43"); Height: 111.8 mm (4.40") Ceiling Mount (AT8554): 36.6 mm (1.44") × 106.0 mm (4.17") × 106.0 mm (4.17") (H × W × D)
<b>Output connector</b>	Euroblock connector
<b>Accessories furnished</b>	AT8554 Ceiling Mount; RJ45 breakout cable (×2); seismic cable

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<sup>2</sup> = 10 microbars = 94 dB SPL

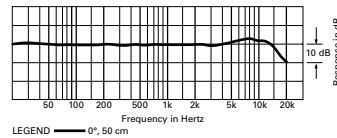
<sup>1</sup> Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

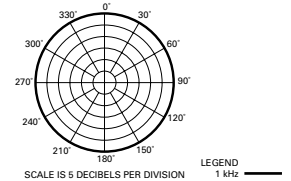


### Omnidirectional (O)

frequency response: 20-16,000 Hz

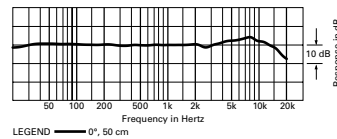


### polar pattern

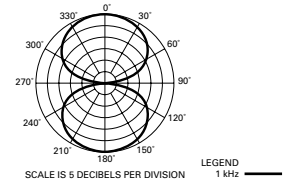


### Figure-of-eight (L/R/Z)

frequency response: 20-16,000 Hz



### polar pattern



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