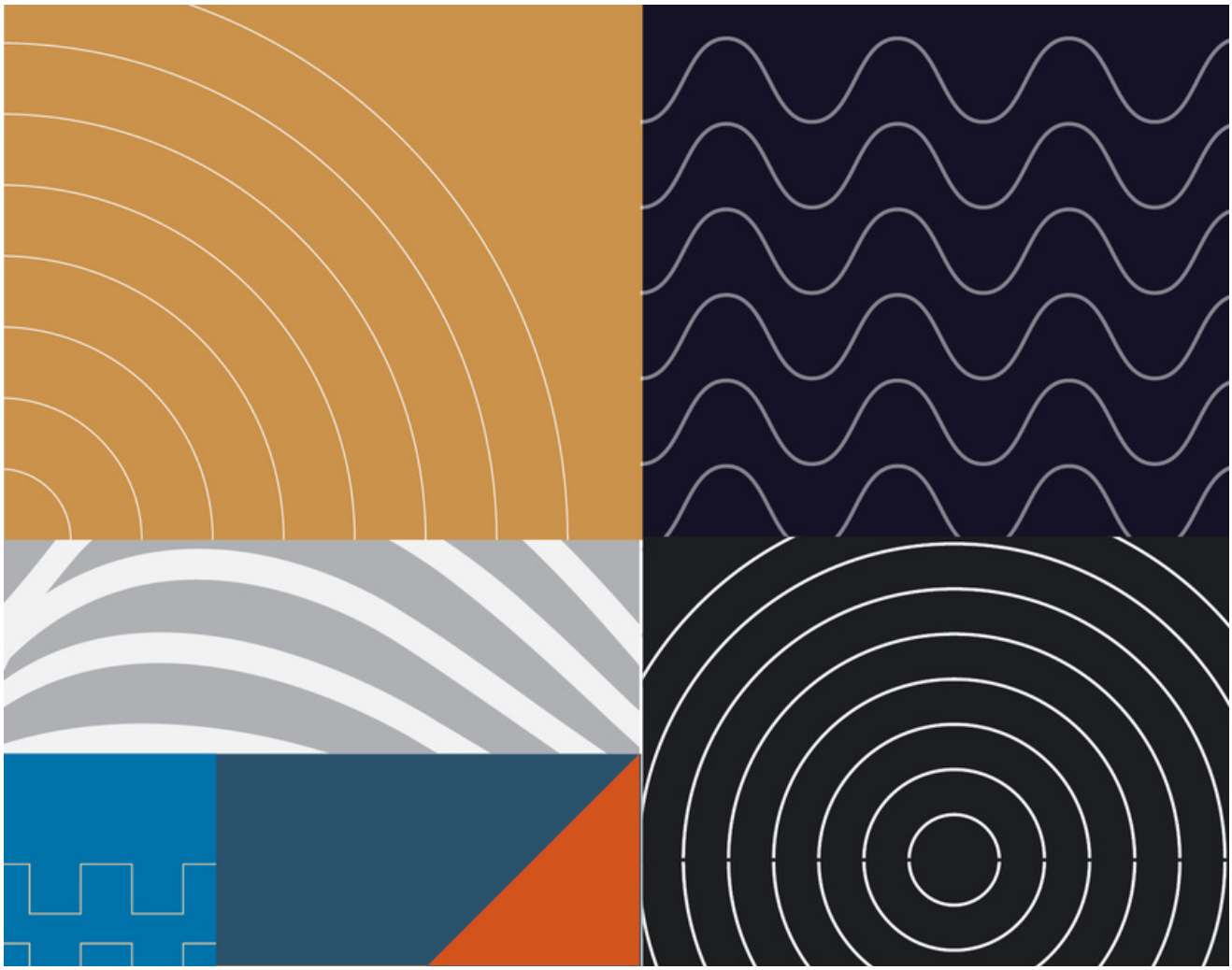
NEW PRODUCT ANNOUNCEMENT

NEW UNIDIRECTIONAL MICROPHONES



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New Product Introduction

PUI Audio is excited to broaden its microphone offerings by introducing three new unidirectional microphones - two high-definition ECMs (TUM-1842L-HD & AUM-5241L-HD) and one MEMS unidirectional microphone(AUMM-3842). Unidirectional microphones, also known as directional or cardioid microphones, are designed to pick up sound primarily from one direction while minimizing noise from other directions. The newly introduced MEMS microphone, AUMM-3842 distinguishes itself as a directional microphone in a market predominantly populated by omni directional counterparts. Unlike the prevailing omnidirectional MEMS microphones, the AUMM-3842 eliminates the need for intricate beam forming processing to convert from an omnidirectional to a unidirectional pattern.

Applications: These new microphones find applications in various settings where targeted sound capture is important. For example, these will perform exceptionally well in automotive applications, consumer applications such as broadcasting, conference rooms or headsets.

New Unidirectional Microphones

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ECM Microphones

TUM-1842L-HD Key Features:

- Small, 4mm diameter
- Short, 1.8mm height
- -42dB sensitivity
- 59dB signal-to-noise ratio
- Cardioid pickup pattern

AUM-5241L-HD Key Features:

- -41dB sensitivity
- 74dB signal-to-noise ratio
- Cardioid pickup pattern
- 14mm diameter
- 5.2mm height

PUI Audio's all-new HD Series ECM microphones utilize premium-grade MOSFETs and diaphragms for high sensitivity and a superior signal-to-noise ratio. Each microphone features GSM buzz-blocking capacitors. Upgrade the ECM microphone you are currently using with a PUI Audio HD Series microphone.

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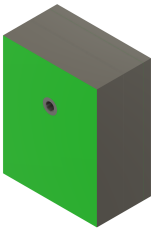
MEMS Microphones



AUMM-3842 Key Features:

The all-new PUI Audio AUMM-3842 MEMS unidirectional microphone features a -42dBV sensitivity and a 59dBA (typical) signal-to-noise ratio.

The 3.76mm x 2.95mm x 1.7mm surface-mount AUMM-3842 features a cardioid/ unidirectional sensitivity pattern using both a top-port and bottom-port configuration. This achieves a focused capture of acoustic sources directly on-axis with the microphone's bottom acoustic port.

Additional microphones products at

puiaudio.com/products/ category /microphones

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WHEN IT NEEDS TO BE HEARD

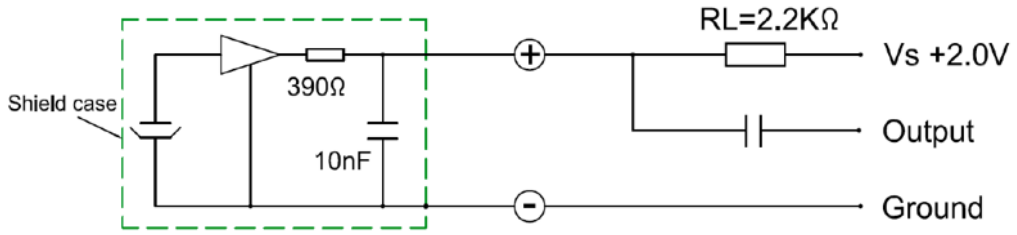
Unidirectional Microphones

Unlike an omnidirectional microphone's uniformly circular sensitivity pattern, a unidirectional microphone offers a cardioid (heart shape) polar sensitivity pattern, as shown below. This directional pattern is commonly used in consumer applications. These new microphones are designed for extreme fidelity and focused recording of acoustic sources directly on-axis with the face of the microphone. Uni-directional (cardioid) microphones are built with sound ports on the front and on the rear of the capsule.

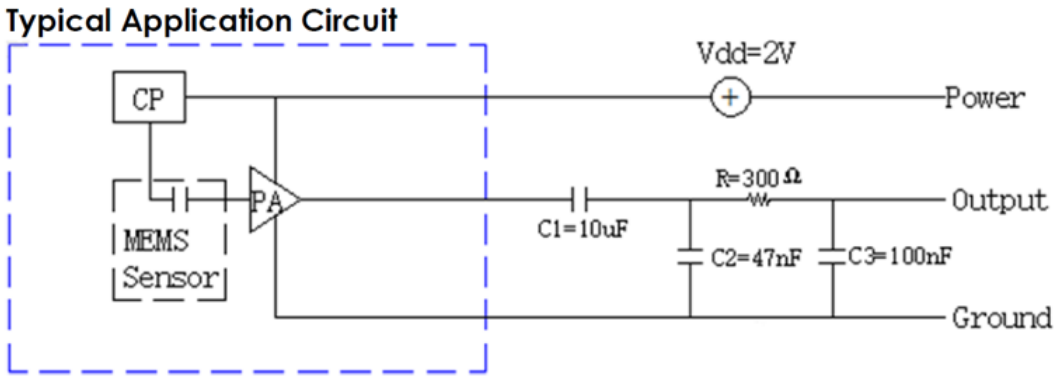
Inside the capsule, sound from the front takes precedence over sound captured from the rear. Sound from the rear is partially canceled-out, creating a response tailored for one direction.

Application Circuit

ECM Microphones



MEMS Microphones



Additional resources at:

https://puiaudio.com/news/choosing-the-right-microphone

https://puiaudio.com/wp-content/uploads/2022/08/MicrophoneDirectivity.pdf

https://puiaudio.com/wp-content/uploads/2022/08/Wide-BandMEMSMicrophonesApplicationGuide.pdf

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