



PUIaudio

NEW PRODUCT HIGHLIGHT

Audio Buzzers

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Announcement

PUI Audio is pleased to announce the launch of 2 new ultrathin and lightweight piezoelectric buzzers, specifically designed to produce clear sound reliably consuming minimal power.

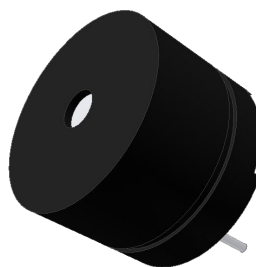
Piezo devices have proven to be long-lasting, weather-resistant, high-quality products, with excellent long-term repeatability of the output signal. A wide variety of applications of piezo buzzers in use today range across fire and safety, home and retail security, home automation, point of sale/purchase, medical devices, hand-held electronics, kiosks, and industrial products.

To facilitate a smooth transition to our reliable products, we have compiled a cross-reference guide. Additionally, PUI Audio offers a lead-free piezo solution as an alternative for adoption in new designs to comply with advanced regulatory requirements.

We understand the challenges associated with the discontinuation of Murata products and are committed to supporting potential customers through this transition. Our dedicated engineering support team is available to address any questions or concerns you may have. Please review the table provided below and do not hesitate to reach out to our team for further assistance or clarification.



Indicators



Transducers

New Product Specifications

Part Name	Type	Frequency	SPL	Voltage	Current	Size	Mounting Type
AI-2335-TT	PIEZO Indicator	3500Hz	100dB	12V	15mA	23 * 9.8MM	Through Hole
AT-1240-TT	PIEZO TRANSDUCER	4000Hz	80dB	5V	5mA	12 * 5.5MM	Through Hole

Key Advantages: Piezoelectric

Piezoelectric vs Electromagnetic Transducers – At a Glance

Piezoelectric



- ⚡ Low Power (voltage drive)
- ⚙ Fewer Parts
- ↓ Profile: Low

Electromagnetic

Sound emitting hole



- ⚡ High Power (current)
- ⚙ Many Parts
- ↑ Profile: Bigger

Q1: How to choose between magnetic Vs piezo transducers for a medical device alert?

A1: We have extensive experience providing alert solutions for medical applications. We recently released piezoelectric-based medical indicators that comply with IEC 60601-1-8 for general ventilation, oxygen, and cardiovascular applications.

<https://puiaudio.com/resource/iec-60601-8-application-guide/>

Q2: Do you offer buzzers that can withstand high temperatures?

A2: Yes. Several buzzers including surface-mount models are designed to withstand high-temperature reflow soldering. In addition, we offer waterproof buzzers built for rugged environments where durability and reliability are critical. You can use product filters on our website to get relevant part number recommendations.

Q3: Do you provide drop-in replacements for other major brands?

A3: Yes. We offer drop-in replacements for many leading manufacturers, including Murata, Mallory Sonalert, DB Unlimited, CUI, and others. Our portfolio makes it easy to qualify alternatives without requiring major design changes.

Q4: How to tune piezo transducers for resonance in a wearable?

A4: Piezo buzzers and transducers have a natural mechanical resonance at which they vibrate most efficiently, typically specified in the datasheet. For optimal performance, the transducer should be firmly mounted to the PCB or enclosure to ensure efficient vibration transmission. In a wearable, the casing acts as a small acoustic chamber, and its size and shape can shift both the resonant frequency and the SPL output. To tune the device, apply a range of frequencies around the transducer's nominal resonance to identify the peak SPL. Even small changes in position, enclosure design, or drive frequency can significantly impact resonance in compact wearable devices.

Q5: How do we ensure consistency and QA across large production runs?

A5: We are passionate about quality. Pui Audio do 100% in-line testing during production, followed by 100% end-of-the-line testing and before anything leaves the manufacturing facility, there is a final inspection performed by the QA department. When the product reaches our Dayton, Ohio headquarters, an additional ANSI standard Z 1.4 sample lot inspection is carried out. All test data is digitally captured to identify and analyze trends.

CONCLUSION

Internally driven indicators simplify design by integrating their own drive circuits, producing consistent and reliable tones without external electronics. In contrast, externally driven piezoelectric transducers offer greater flexibility, allowing engineers to tailor performance through different drive circuits and waveforms—whether frequency-shifted, amplitude-modulated, or shaped for specific tonal qualities. While theoretical predictions of sound pressure level (SPL) can be made under defined conditions, it is important to recognize that real-world environments significantly influence actual measurements and performance.

PUI Audio carries a broad portfolio to meet diverse application needs, ranging from simple alerts to complex, customized acoustic outputs.

Additional products at:

<https://puiaudio.com/products/category/indicators>

<https://puiaudio.com/products/category/transducers>

<https://puiaudio.com/products/category/benders>

<https://puiaudio.com/wp-content/uploads/2023/10/Buzzers-Expansion-1.pdf>