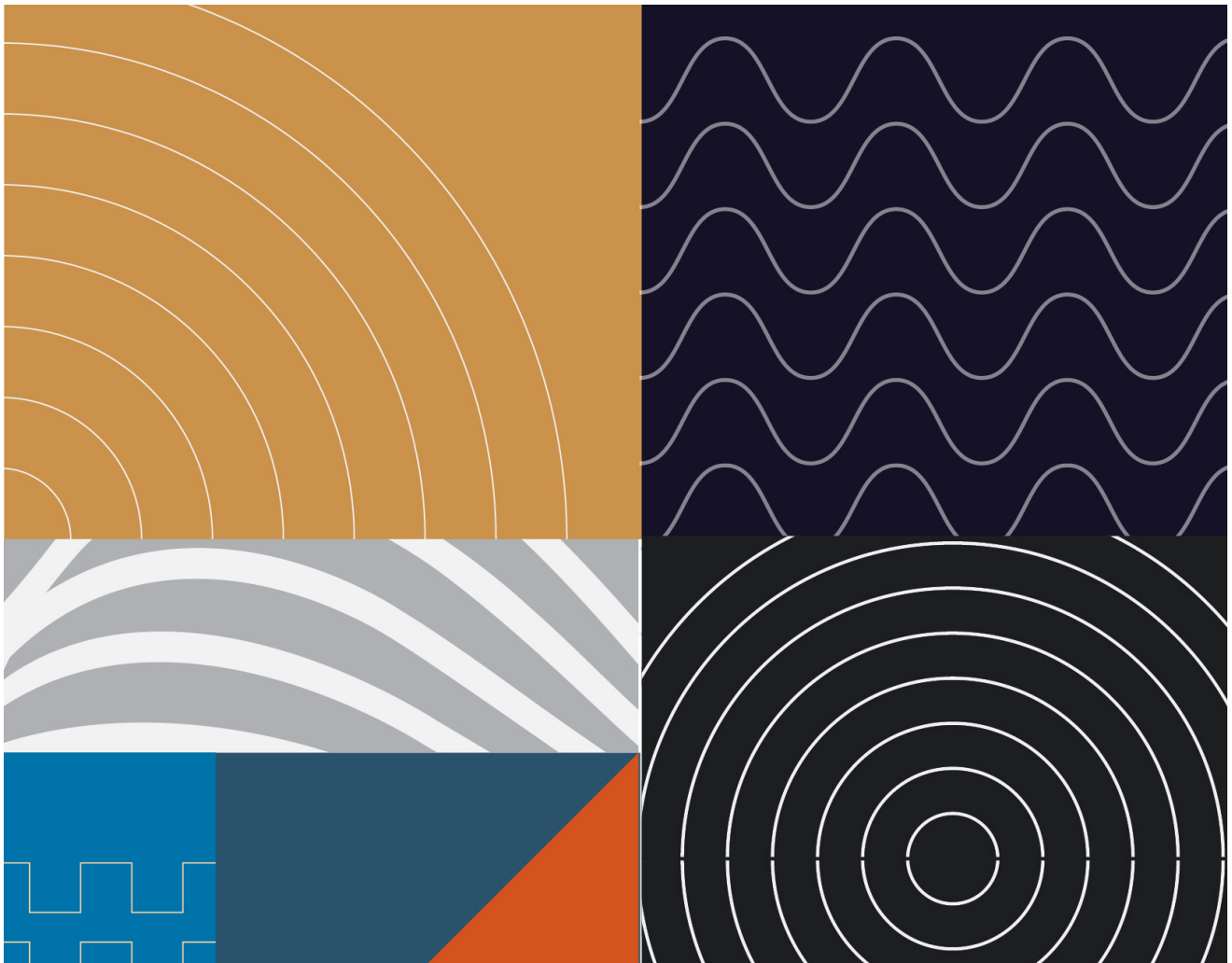




NEW PRODUCT INTRODUCTION
Mar 2024

Piezoelectric Benders



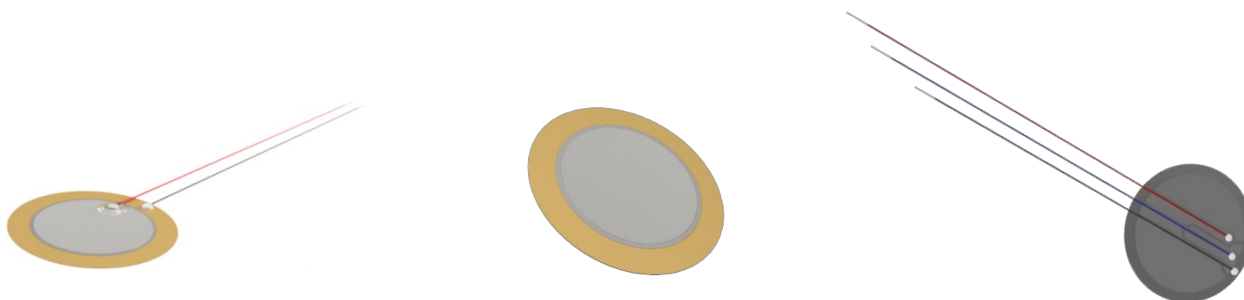
Announcement

PUI Audio is pleased to announce the launch of 10 new piezoelectric benders, specifically designed to replace soon to be obsolete Murata piezoelectric benders. These new ultrathin and lightweight piezo benders 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 benders 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 detailed below. 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.



New Products

	Murata Part	Part Description	PUI Audio Part #
New	7BB-20-3	20MM 3KHZ 20NF BRASS BENDER	AB2036B-2
		Lead FREE CROSS REFERENCE	ABLF2036B
New	7BB-20-6	20MM 6KHZ 10NF BRASS BENDER	AB2063B-2
New	7BB-20-6C	20MM 6.3KHZ 8.5NF BRASS BENDER W/ FEEDBACK	AB2063BF
New	7BB-20-6CLO	20MM 6.3KHZ 8.5NF BRASS BENDER W/FEEDBACK	AB2063BF-LW50
New	7BB-20-6LO	20MM 6KHZ 10NF BRASS BENDER	AB2063B-LW50
New	7BB-41-2	41MM 2.2KHZ 30NF BRASS BENDER	AB4122B
New	7BB-41-2C	41MM 2.2KHZ 24NF BRASS BENDER W/ FEEDBACK	AB4122BF
New	7BB-41-2LO	41MM 2.2KHZ 24NF BRASS BENDER	AB4122B-LW50
New	7NB-31R2-1	31.2MM 1.3KHZ 40NF IRON-NICKEL ALLOY PLATE BENDER	AB3113A-2
New	7NB-41-1	41MM 1KHZ IRON-NICKEL ALLOY PLATE BENDER	AB4108A

In Production

Status	Murata Part	Part Description	PUI Audio Part #
Existing	7BB-12-9	12MM 9KHZ 8NF BRASS BENDER	AB1290B
Existing	7BB-15-6	15MM 6KHZ 10NF BRASS BENDER	AB1560B
Existing	7BB-15-6LO	15MM 6KHZ 10NF BRASS BENDER W/ LEAD WIRES/OTHER	AB1560B
Existing	7BB-27-4	27MM 4.6KHZ 20NF BRASS BENDER	AB2746B
		LEAD FREE CROSS REFERENCE	ABLF2746B
Existing	7BB-27-4C	27MM 4.6KHZ 18NF BRASS BENDER W/ FEEDBACK	AB2745BF
Existing	7BB-27-4CLO	27MM 4.6KHZ 18NF BRASS BENDER W/ FEEDBACK & LEAD WIRES/OTHER	AB2745BF
Existing	7BB-27-4LO	27MM 4.6KHZ 20NF BRASS BENDER W/ LEAD WIRES/OTHER	AB2746B-LW100-R
		LEAD FREE CROSS REFERENCE	ABLF2746B-LW100
Existing	7BB-35-3	35MM 2.8KHZ 30NF BRASS BENDER	AB3528B
Existing	7BB-35-3C	35MM 2.8KHZ 24NF BRASS BENDER W/ FEEDBACK	AB3529BF
Existing	7BB-35-3CLO	35MM 2.8KHZ 24NF BRASS BENDER W/ FEEDBACK & LEAD WIRES/OTHER	AB3529BF-LW100-R
Existing	7BB-35-3LO	35MM 2.8KHZ 30NF BRASS BENDER W/ LEAD WIRES/OTHER	AB3528B-LW100-R
Existing	7SB-34R7-3C	34.7MM 3.1KHZ 24NF STAINLESS BENDER W/ FEEDBACK	AB3531S-LW50-R

Key Consideration for usage

- Please avoid touching the piezoelectric bender with bare hands as the electrodes may corrode.
- Applying a load to the central area of the diaphragm can result in clacking within the ceramic element.
- When the diaphragm is supported at the edge, load application should be restricted to the surrounding edge only. Exceeding specified mechanical stress may lead to component damage.
- Ensure the operating circuit is shielded from surge voltages arising from shock, drop, and temperature fluctuations.
- Applying a DC voltage will cause deformation of the piezo plate, while an AC voltage induces vibration. Conversely, mechanical strain such as vibration or pressure applied to the piezo plate generates a current.

Soldering Piezo

Numerous engineers and electronics enthusiasts are well aware of the difficulty involved in hand soldering a piezo bender and the potential for inadvertently damaging the components. PUI Audio offers leaded versions in several sizes and variations as standard off-the-shelf products to allow customers and engineers the opportunity to prototype and put a product into a design in a much more simple and reliable fashion. Please [reference our guide](#) to soldering.

Resonant Chamber Design & Drive Circuits

Please [view our Whitepaper](#) that details the design of a Helmholtz chamber and associated drive circuits.

CONCLUSION

We are thrilled to announce the expansion of our piezoelectric bender offering and look forward to serving our customers with the best possible solutions. PUI Audio offers comprehensive documentation and support to assist engineers in designing optimal drive circuits tailored to their specific requirements. Contact us today to learn more about our products and how we can help you with your audible alert needs.

Additional products and resources at:

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

