



NEW PRODUCT ANNOUNCEMENT

Dec 2024

HAPTICS

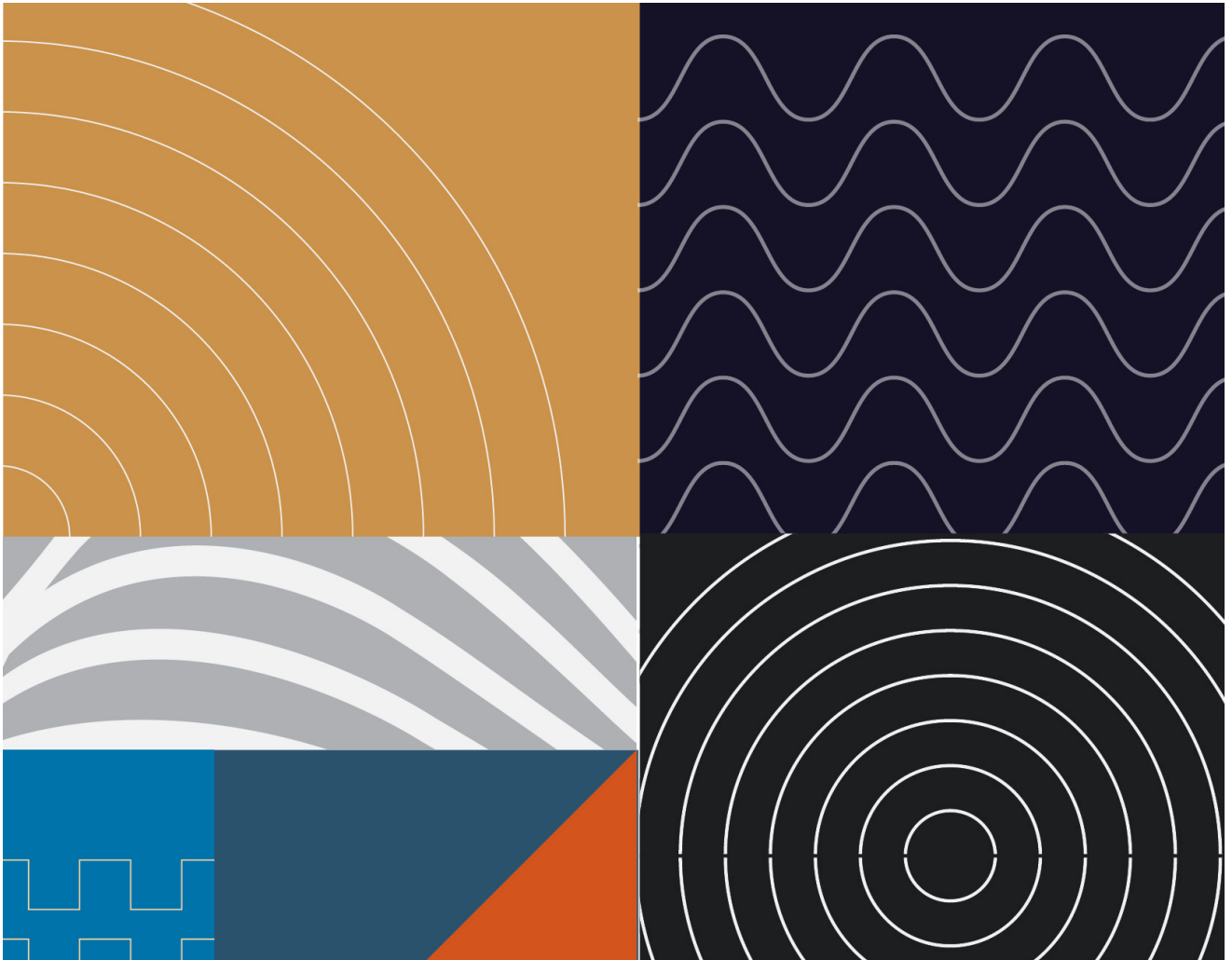


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Introduction

PUI Audio is proud to announce the launch of its enhanced vibration motor lineup, designed to meet the diverse needs of modern electronic applications. Featuring coreless and brushless Eccentric Rotating Mass (ERM) actuators as well as compact Linear Resonant Actuators (LRA), this lineup delivers precise control, powerful vibrations, and seamless integration. Whether you're designing consumer electronics, industrial devices, or medical applications, PUI Audio's vibration motors set a new standard for efficiency and reliability.



Key Applications:

- **Medical Devices:** Portable diagnostic tools, wearables and therapeutic devices.
- **Industrial Applications:** Robotics, machinery alerts, and haptic feedback systems.
- **Consumer Electronics:** Wearables, smartphones, and handheld gaming devices.
- **Security Systems:** Intrusion detection, silent alarm activation, and haptic feedback in access control devices.



Key Features

New! ERM and LRA Haptics

Category	PUI Part Number	Size (mm)	Rated Voltage (V)	Rated Current (mA)	Rated Speed (RPM)	Unique Value Proposition
Powerful ERM	HD-EMB2212	21.5 x 12	3.7	110	7,500	New Footprint ERM. Powerful vibration force up to 3.2G at just 110mA current consumption.
	HD-EMB2110-LW140	21.3 x 10	3.7	150	8,500	New Footprint ERM. Strong vibration force Acceleration < 2.0G. Includes Lead Wire Assembly.
	HD-EMC1003-3-LW27	10 x 3.4	2.5	80	11,000	Dual Magnet ERM for stronger acceleration > 1.0G. Quicker response than all ERM coin motors Very low starting voltage 1.1V.
Brushless ERM	HD-EMC1103-LW27	11 x 3.4	3.7	85	8,000	Biggest vibration force in coin brushless motor, exceeding 2.0G. High reliability and embedded IC for precise control.
	HD-EMC0903-LW27	9 x 2.7	3.0	80	10,000	Smaller 10mm Brushless ERM motor. High reliability and embedded IC for precise control.
	HD-EMC0503-LW27	5 x 2.5	3.0	85	10,000	Smallest coin Brushless DC vibration motor. High reliability and embedded IC for precise control.

Key Features

New! ERM and LRA Haptics

Categories	PUI Part Number	Size (mm)	Voltage (V)	Current (mA)	Rated Speed (RPM)	Unique Value Proposition
Spring Contact Coin ERM	HD-EMC1004-SC	10 x 3.8	3.0	80	9,000	New Footprint Coin ERM. Spring contacts on motor upper case directly align with the contact pads on the application PCB. Easy to install, no soldering.
Spring Contact Cylindrical ERM	HD-EMB1408-SC	14.4 x 8.05	3.0	70	10,000	New Footprint Coin ERM. Spring contacts on motor upper case directly align with the contact pads on the application PCB. Easy to install, no soldering.
	HD-EMB1606-SC	16.2 x 6.0	3.0	75	11,000	New Footprint Bar ERM. Spring contacts on motor upper case directly align with the contact pads on the application PCB. Easy to install, no soldering.
Coreless ERM	HD-EMB2107-LW27	20.5 x 6.6	1.3	80	7,500	Coreless brush vibration DC motor. Lower friction and energy losses enable smooth, high-speed rotation up to 7500 RPM. Ideal for compact, precise control.
LRA	HD-LA0503-LW28	5 x 2.6	0.7	90	260Hz	AC Driven Linear Resonant Actuator Haptics. Efficient than ERMs. Smallest LRA-efficient vibration coin motor.

Key Benefits

1. Diverse Applications:

- From haptic feedback in wearables to vibration alerts in industrial equipment, this product portfolio covers a wide range of applications.

2. Compact and Powerful Designs:

- Small footprints paired with exceptional vibration force and precision make these motors ideal for space-constrained designs.

3. Ease of Integration:

- Spring contact designs eliminate the need for soldering, ensuring faster, more reliable assembly.

4. Energy Efficiency:

- Lower friction and optimized energy consumption make the motors suitable for battery-powered devices.

5. Reliability:

- Embedded chip and robust construction provide long-lasting, high-performance operation.

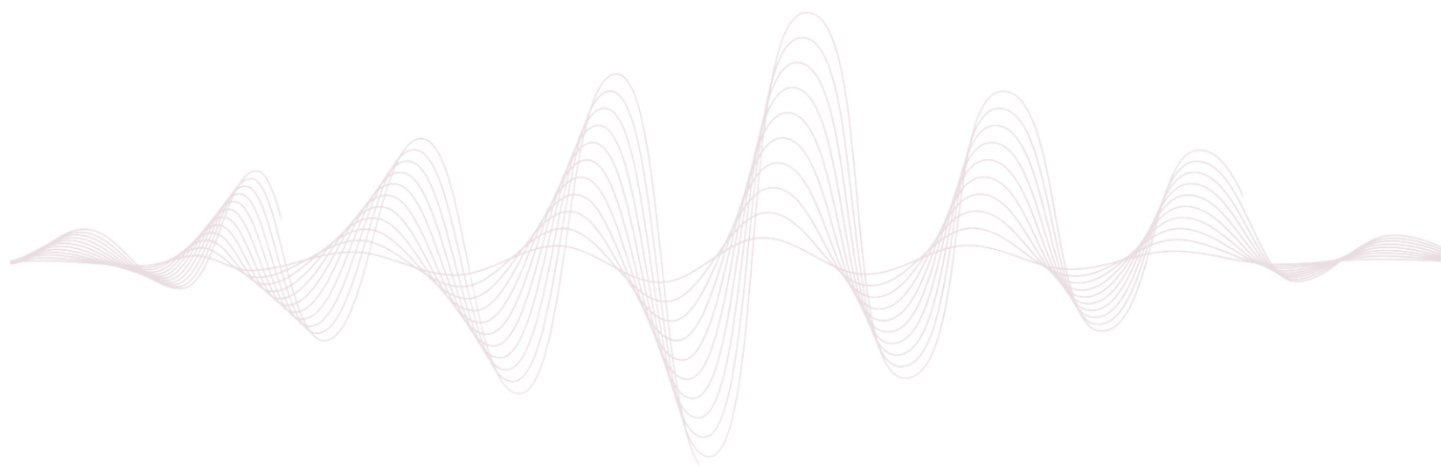


Next Steps

Let PUI Audio power your next design with precision and performance! Explore the new lineup and request samples today. Contact your PUI Audio representative or visit our website for more details.

We have previously published whitepapers on drive circuits for ERM and LRA. You can access them by visiting our website's Resource Library and applying the Haptics filter.

- <https://puiaudio.com/wp-content/uploads/2022/12/Haptics-App-Guide-Final.pdf>
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