



NEW PRODUCT ANNOUNCEMENT

SURFACE MOUNT Audio & Haptics

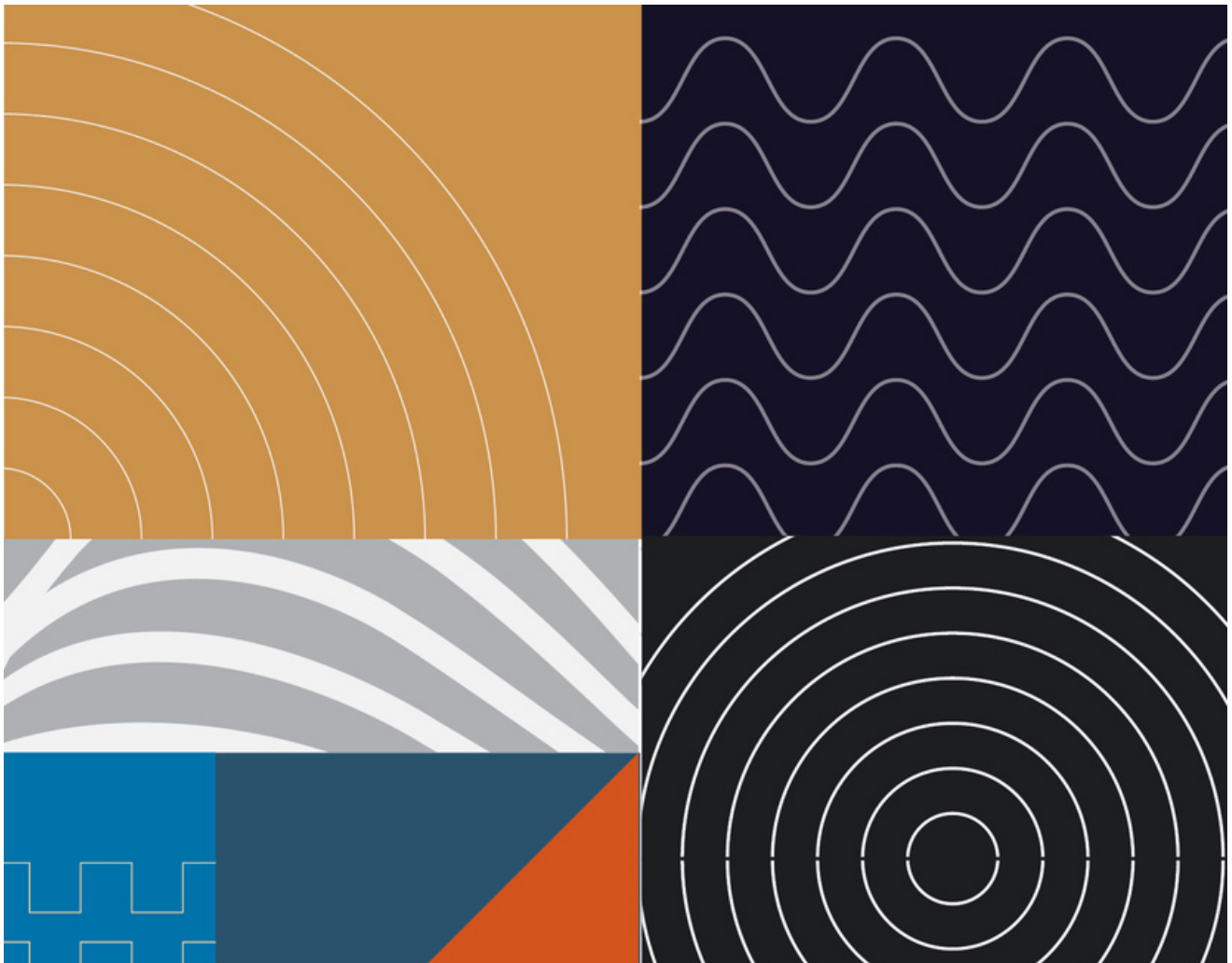


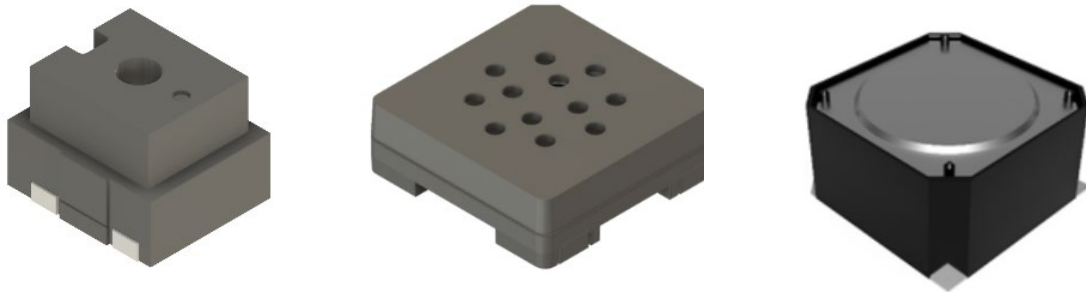
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Introduction

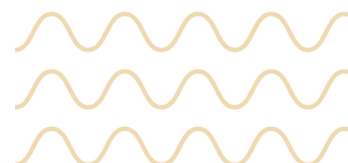
Surface Mount Technology is essential for modern electronics manufacturing. It allows for the creation of small, high-performance, and affordable electronic assemblies, making it crucial for developing advanced electronic devices.

PUI Audio offers a broad product range with various mounting configurations, including surface mount packages for audio, haptics, and sensors. We are excited to announce the **addition of a waterproof 25mm surface mount speaker** and a **17mm surface mount transducer** to our surface mount lineup.



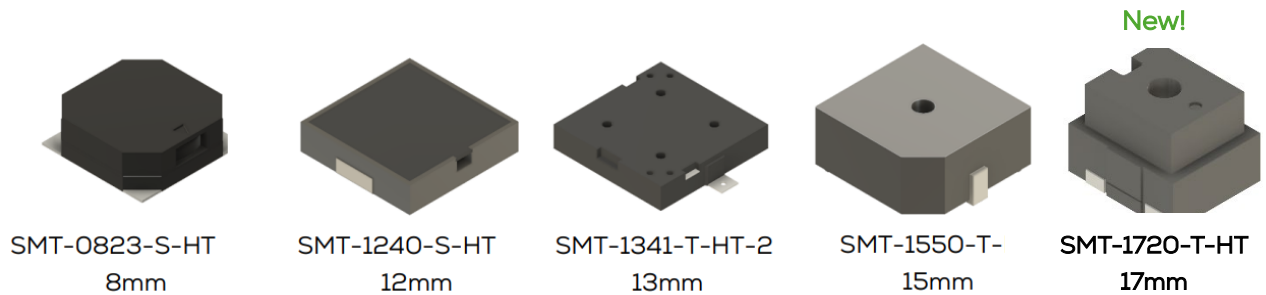
Key advantages of Surface Mount Technology include increased functionality in a smaller space by allowing more components to be placed on both sides of the PCB, improved performance due to shorter signal paths, and reduced labor costs through automated assembly processes. Additionally, SMT components are less prone to physical damage as they do not have leads protruding through the PCB.

However, careful design considerations are needed to address thermal issues and ensure better-quality control. These devices are equipped with specially designed materials for the cone, housing, and magnet, enabling them to withstand extreme temperatures during reflow soldering. Please reference the land pattern and soldering profile for each device in detailed specification to ensure proper assembly.



Surface Mount Transducers

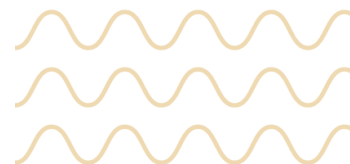
We are excited to announce the addition of a 17mm electromagnetic transducer to our latest line of surface mount transducers from 8mm to 15mm range.



These low-profile and easy-to-integrate transducers are ideal for a wide range of applications and able to withstand temperatures from -40°C to 85°C such as medical devices, industrial equipment, security systems, appliances, communication devices, and more.

Key Features of New SMT-1720-T-HT

- Resonant Frequency at 2000 Hz
- High SPL of at least 95 dB at 10cm
- Broad Temperature range from -40°C to $+105^{\circ}\text{C}$



Surface Mount Speakers



SMT-1308MS-2-R

13mm
8 Ohms

SMT-1508MS-HT-R

15mm
(4, 8, 16 Ohms)

SMT-1804MS-HT

18mm
4 Ohms

SMT-2008MS-R

20mm
(8, 30 Ohms)

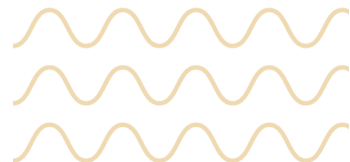
SMT-2504MS-WP-HT

25mm
4 Ohms

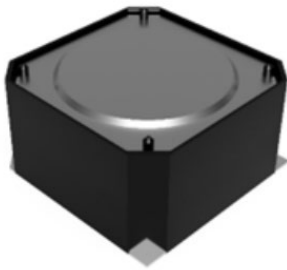
Currently we offer surface mount speakers in 13mm, 15mm, 18mm and 20mm. This new 25mm speaker provides a unique audio experience designed to easily assemble in the end application.

SMS-2504MS-WP-HT Key Features

- Slim 6.5mm height for a low-profile package
- 25mm sleek speaker rated at a 2W input power with 2.5W max
- 90 dB SPL across its broad 650 Hz to 20,000 Hz frequency range.
- -40°C to 105°C operating temperature range for a wide range of applications.



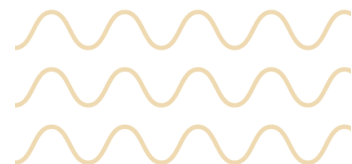
Surface Mount Linear Haptics



Our patented technology is the industry's first surface mount voice actuator. PUI Audio's HD-LA1307-SM is a 13mm x 13mm surface mount actuator that delivers 1.8G maximum acceleration in a linear direction at a resonant frequency of 154 Hz to provide immediate, high-resolution tactile feedback. Our new waterproof IP rated surface mount product facilitates seamless integration into various end applications.

Key Features of HD-LA1307-SM

- PUI Audio's Patented Haptic Technology
- Surface Mount Technology is ideal for virtual realities environment, gaming consoles, medical simulators, handheld devices, consumer and industrial control interfaces.
- Designed by PUI Audio to provide immediate, high-resolution tactile feedback in nearly any application



Recommended Soldering Profiles

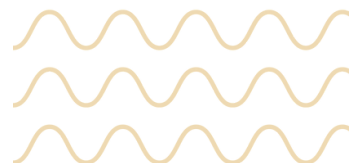
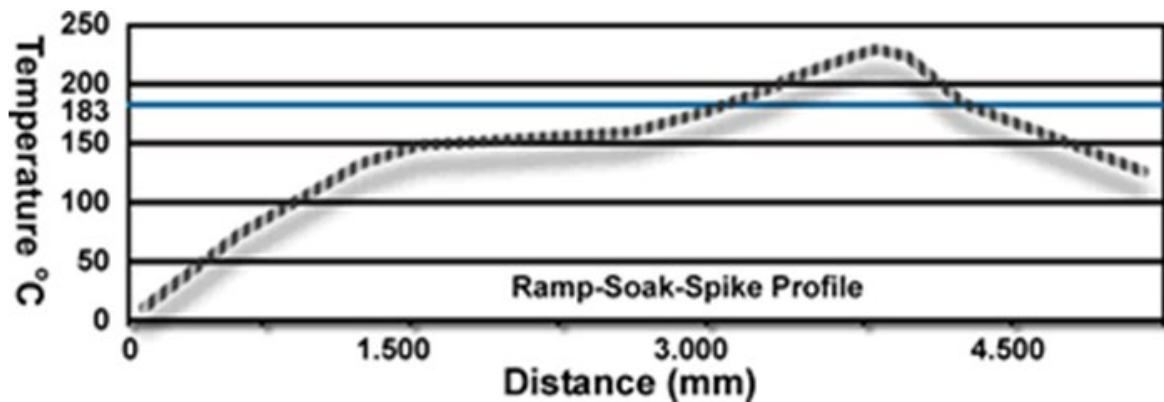
Convection/IR Reflow Soldering

The following is the recommended generic parameter profile for convection/IR reflow soldering process for SMD type products.

	Maximum	Recommended	Minimum
Ramp up (°C /sec)	3°C /sec	2°C /sec	
Dwell Time \geq 183°C	150 sec.	75sec.	60sec.
Peak Temperature	240°C	230°C	
Dwell Time @ Max.	30 sec.	20 sec.	10sec.
Ramp Down (°C /sec.)	4°C /sec.	2°C /sec.	

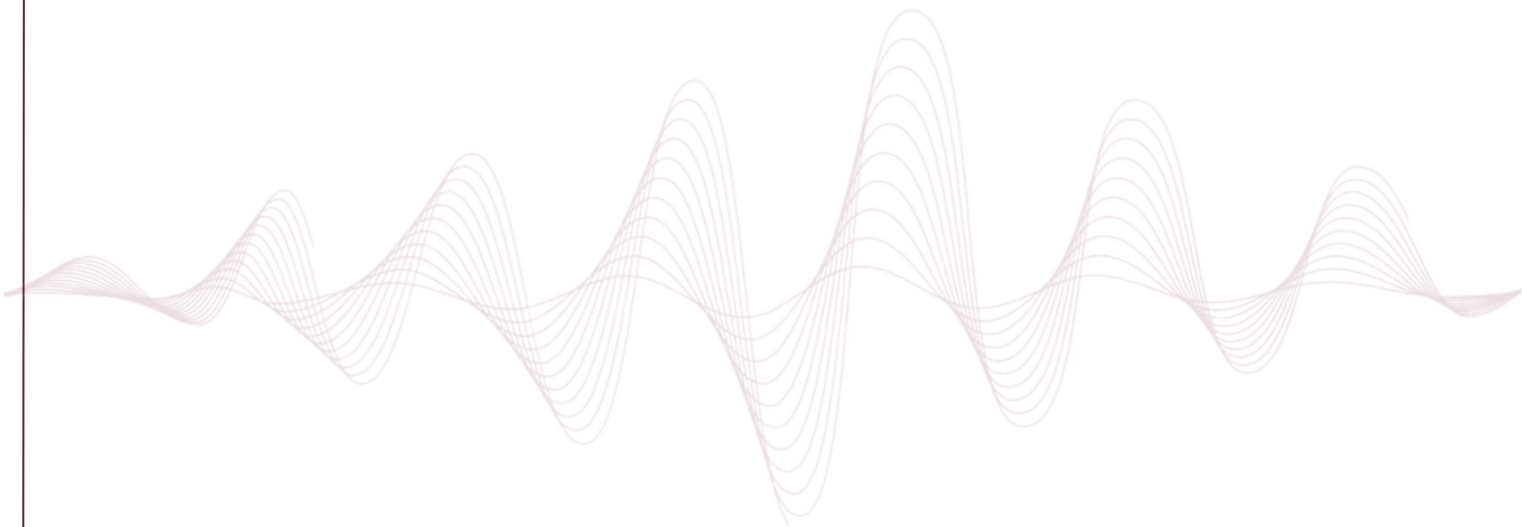
Notes:

Temperature measured at the component lead area.



Conclusion

Our newly developed surface mount alert devices offer a compact solution and easy integration with end applications. With a miniaturized package and sound alert capability, these new audio and haptics devices provide economical and efficient solutions for a wide range of uses.



View our offerings at:

[Surface Mount Speakers](#)
[Surface Mount Transducers](#)
[Surface Mount Haptics](#)

