Product Specification

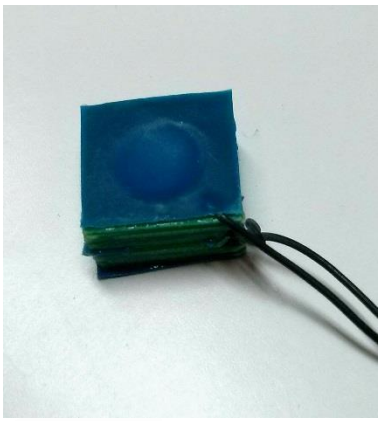
R0.2, August 12, 2015

Haptuator™ Planar

Miniature High-Bandwidth Vibrotactile Transducer

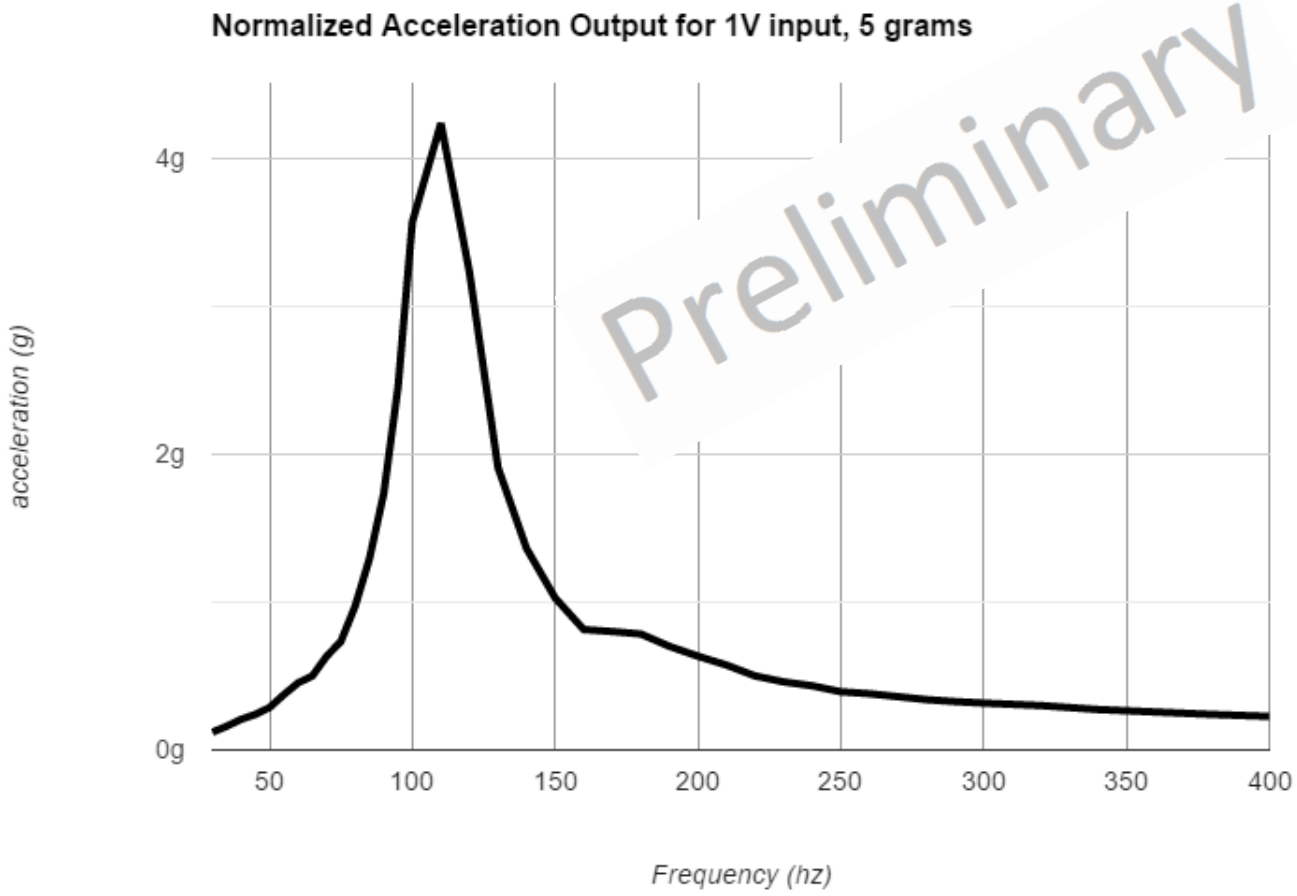
Haptuator™ Planar is a miniature, planar version of the original Haptuator. In addition to the same 50-500Hz high bandwidth characteristics as the original Haptuators, the Haptuator Planar consists of a soft surface specifically designed to directly stimulate the skin. The 6mm low profile and the 1.8 grams light weight allow it to be embedded in small devices. Its patent-pending planar structure allows it to have comparable performance and similar impedance as the original Haptuator. It is compatible with common audio amplifiers designed for loud speakers (avoid driving it with too much power).

Model Number	MR-HPL-12126-A	
Nominal Dimension	12 x 12 x 6	mm
Net Weight	1.8	grams
Peak Acceleration 1V input, 85 Hz with 5g extra load (20g total)	2.2 21.6	G m/s^2
Rated Bandwidth	50 - 500	Hz
Typical Impedance	6.0	Ω
Maximum Input Voltage	2.0	Vrms
Maximum Input Current (maintain a temperature of less than 50 deg Celcius)	0.25	A



The Haptuator™ Planar is also distributed by Tactile Labs Inc (info@tactilelabs.com).

Output Acceleration



To calculated the output acceleration for a given input voltage of ***Vi*** (rms):

1. For the desired operating frequency, find the normalized acceleration value ***An*** from the above figure. For example, at 300 Hz, ***An*** = 0.8;
2. Perform the following calculation:

$$Acceleration(G) = Vi \times An$$

Notes:

- The Haptuator can be driven as a 4-8 Ω loudspeaker by most audio amplifiers if the input current and voltage are within the recommended operating conditions. The Haptuator should be AC-coupled to avoid driving a DC current into the unit.

Mechanical Dimensions