

Difference between Piezoelectric Buzzer and Piezoelectric Speaker

Product	Thickness & Device	Frequency Range
Piezoelectric buzzer	200 - 400	2KHz - 8KHz (fixed)
Piezoelectric speaker	less than 150	500Hz - 2KHz (variable)

The lowest frequency of the present piezoelectric speaker is fairly high and difference between piezoelectric buzzer and piezoelectric speaker is not clear.

Basically ideal, piezoelectric speaker should provide thickness less than 60 and frequency range from 200 Hz to 1 KHz. However, technologies to produce the required products in full scale are yet unborn.

Therefore, present piezoelectric speakers do not differ much from piezoelectric buzzers.

Piezoelectric Speakers

Piezoelectric speakers are classified as follows by their driving method.

- Speaker — Dynamic (electrodynamical) type
- Magnetic (electromagnetic) type
- Capacitor (electrostatic) type
- Piezoelectric type
- Electric discharge type

Because the frequency band of the present piezoelectric speaker is from 500 Hz to 2KHz, the resulting sound is somewhat cracking which sounds uncomfortable to the human ear. Where the frequency band between 200 Hz and 1 KHz is realized, a comfortable sound would be achieved as the frequency band is almost equivalent to that of human's. In addition to this, when a thinner speaker become materialized, the application would amazingly expand.

Practically, each and every device which produces any electronic sounds could be replaced by piezoelectric speakers. In order to lower the lowest frequency, the technology to make thinner oscillator without an open-pore is urgently required.