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(54) Title: TRANSDUCER AND METHOD OF CONTROLLING THE SAME

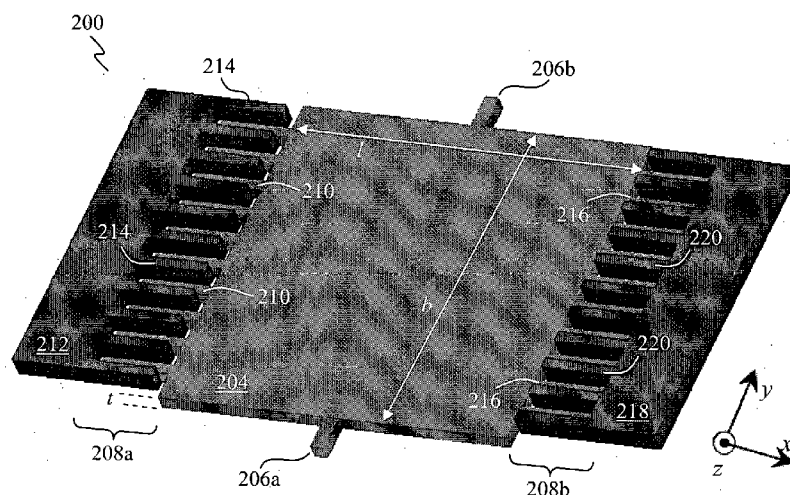


FIG. 2A

(57) Abstract: According to embodiments of the present invention, a transducer is provided. The transducer includes a substrate, and a diaphragm suspended from the substrate, wherein the diaphragm is displaceable in response to an acoustic signal impinging on the diaphragm, wherein the transducer is configured, in a first mode of operation, to determine a direction of the acoustic signal based on a first displacement of the diaphragm in the first mode of operation, and to decide to accept or reject the acoustic signal based on at least one predetermined parameter and the determined direction of the acoustic signal, and in a second mode of operation, to sense the acoustic signal based on a second displacement of the diaphragm in the second mode of operation if the acoustic signal is accepted in the first mode of operation.

