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(54) Title: A SYSTEM AND METHOD FOR ACTIVELY CANCELLING A NOISE SIGNAL ENTERING THROUGH AN APERTURE

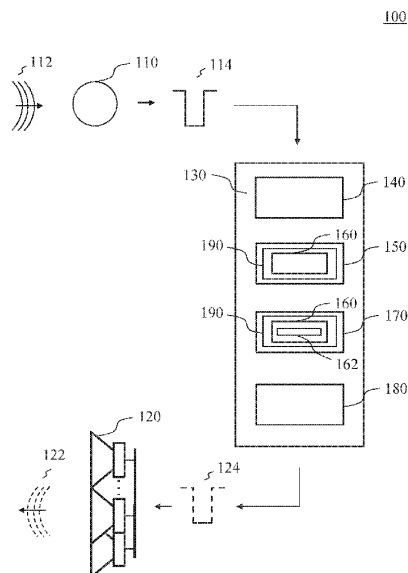


FIG. 1

(57) Abstract: The disclosure concerns a system for actively cancelling an acoustic noise signal entering through an aperture of a room. The system includes a sensor to detect the acoustic noise signal and convert it into an electronic noise signal; a plurality of transducers to generate an acoustic anti-noise signal from an electronic anti-noise signal to cancel the acoustic noise signal; and a controlling circuit operably coupleable to the sensor and the plurality of transducers, which: receives the electronic noise signal, classifies the electronic noise signal by matching a sample of the electronic noise signal to one or more pre-determined cancellation filter candidates, selects a first pre-determined cancellation filter from the one or more pre-determined cancellation filter candidates, based on said classified sample, generates the electronic anti-noise signal by applying the first pre-determined cancellation filter on the electronic noise signal, and transmits the electronic anti-noise signal to the plurality of transducers.

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