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Minervini

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(54) **SILICON CONDENSER MICROPHONE AND MANUFACTURING METHOD**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1136 days.

This patent is subject to a terminal disclaimer.

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(52) **U.S. Cl.** **257/704; 257/724; 257/729; 257/730; 381/369; 438/26; 438/121**

(58) **Field of Classification Search** None
See application file for complete search history.

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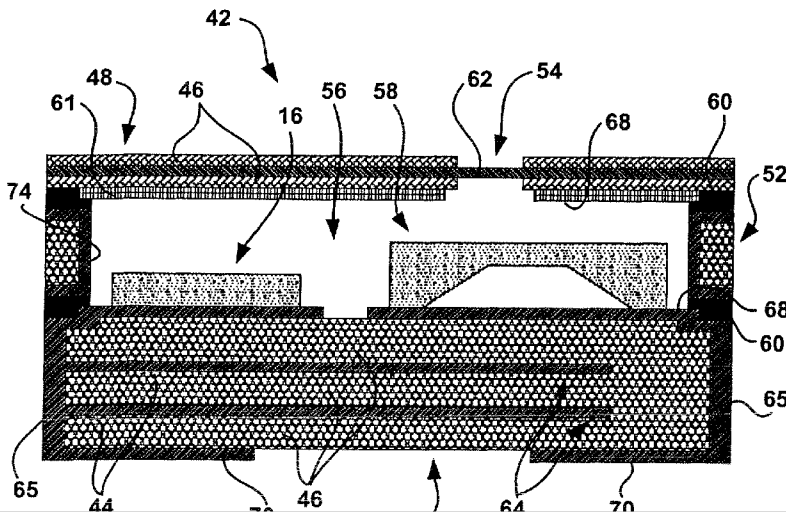
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(57)

ABSTRACT

A silicon condenser microphone package and method for manufacture are disclosed. The silicon condenser microphone package includes a silicon condenser microphone die, a substrate comprising a conductive layer, and a cover having a conductive layer, where the conductive layers of the substrate and cover are electrically connected to form an electromagnetic interference shield for the silicon condenser microphone die. The method for manufacturing the silicon condenser microphone package involves placement of a plurality of silicon condenser microphone dies on a panel of printed circuit board material, placement of covers over each of the silicon condenser microphone dies, and then separating the panel into individual packages.

26 Claims, 19 Drawing Sheets



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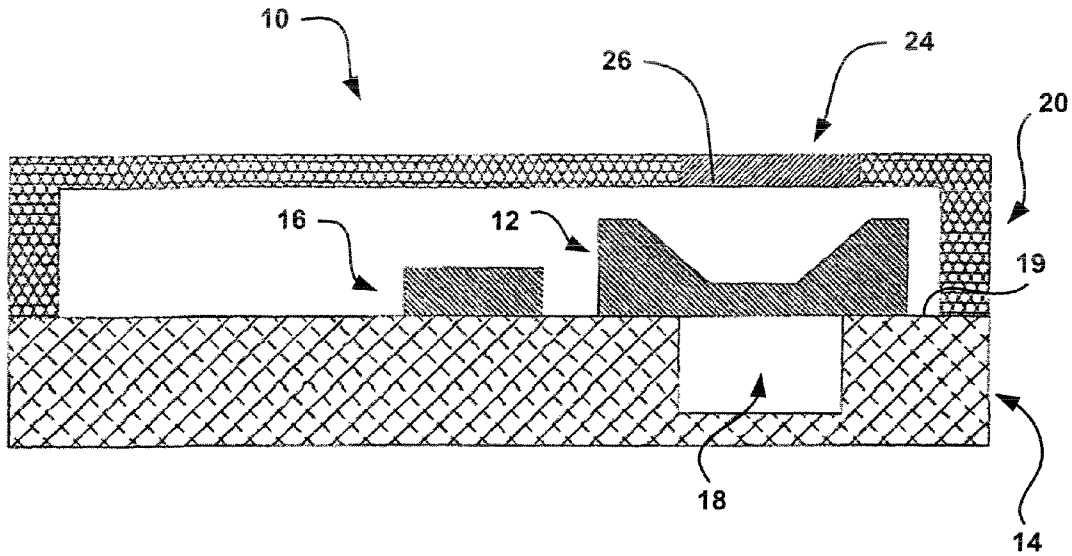


FIGURE 1

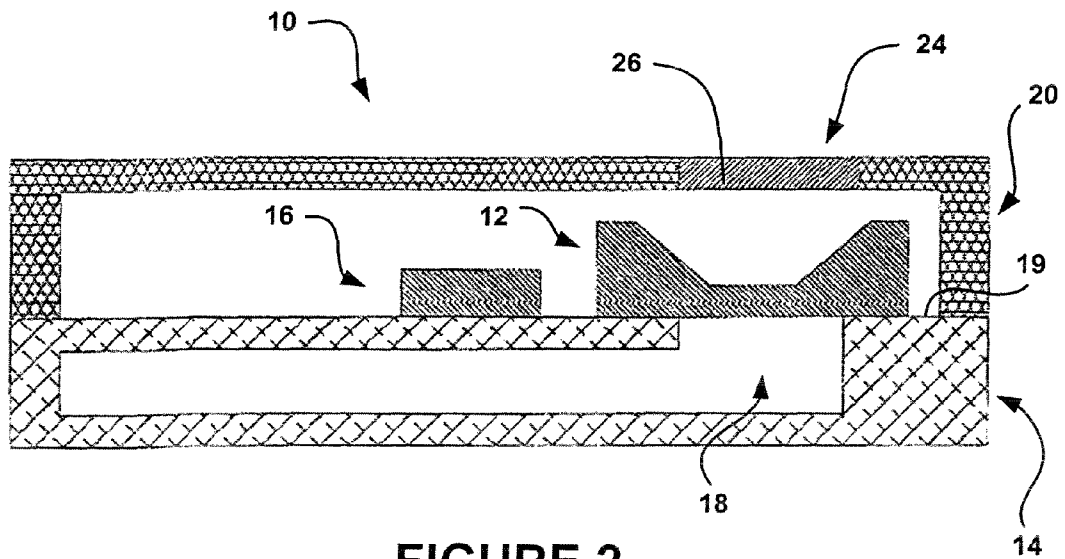


FIGURE 2

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