

Title (en)

Backing layer for acoustic transducer array.

Title (de)

Rückschicht für einen Anordnung von akustischen Wandler.

Title (fr)

Couche arrière pour une ensemble des transducteurs acoustiques.

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Application

EP 94305729 A 19940802

Priority

US 10300793 A 19930805

Abstract (en)

The invention provides an acoustic transducer for transmitting acoustic wave energy in response to an electrical signal and for converting the received acoustic wave energy into an electric signal. The transducer includes an array of piezoelectric elements (52), a backing layer (30) attached at a rearward face of the piezoelectric elements, a circuit element (54) spaced apart from the piezoelectric elements (52) by the backing layer (30), and at least one electrical conductor (24) for each of the piezoelectric elements (52) to connect the elements to the circuit element (54). The backing layer (30) comprises a plurality of layers (10) of acoustic attenuating material integrally formed into a laminate structure. The electrical conductors (24) extend along a surface of each of the layers (10) and have a predetermined pitch. Each of the layers (10) has a thickness substantially equivalent to the pitch of the electrical conductors (24). Individual piezoelectric elements (52) are formed on the upper surface (32) of the laminate structure (30), and conductive pads (46) are formed on the lower surface (34) of the laminate structure. The electrical conductors (24) provide electrical connection through the backing layer (30) between the piezoelectric elements (52) and the associated conductive pads (46). <IMAGE>

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Cited by

CN108461623A; EP0921757A4; EP0727259A3; FR2740933A1; CN111050666A; EP1671588A4; EP2623216A3; US10390793B2; US7348713B2; WO2005030055A1; US7755255B2; WO0240184A3; WO9717145A1

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