

Title (en)

COMPONENT WITH A MICROMECHANICAL MICROPHONE STRUCTURE AND METHOD FOR PRODUCTION SUCH A COMPONENT

Title (de)

BAUELEMENT MIT EINER MIKROMECHANISCHEN MIKROFONSTRUKTUR UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

ÉLÉMENT AVEC UNE STRUCTURE DE MICROPHONE MICROMÉCANIQUE ET PROCÉDÉ POUR PRODUIRE UN TEL ÉLÉMENT

Publication

**EP 2438767 A1 20120411 (DE)**

Application

**EP 10715187 A 20100407**

Priority

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Abstract (en)

[origin: WO2010139498A1] A component having a stable but acoustically sensitive microphone structure, and a simple and cost-effective method for producing same is provided. Said microphone component comprises an acoustically active membrane (11), which functions as a deflectable electrode of a microphone capacitor, a stationary acoustically permeable counter element (12), which functions as a counter electrode of the microphone capacitor, and means for detecting and evaluating the capacity changes of the microphone capacitor. The membrane (11) is realized in a membrane layer (3) above the semi-conductor substrate (1) of the component and spans over a sound opening (13) in the back side of the substrate. The counter element (12) is configured in a further layer (5) above the membrane (11). According to the invention, said further layer (5) substantially extends across the entire component surface and balances level differences, so that the entire component surface is mostly even in compliance with said further layer (5). Therefore, a foil can be applied to the layer designs of the microphone structures exposed in the wafer assembly, which allows for singularization of the components of the invention in a standard sawing process.

IPC 8 full level

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