



US 20220352867A1

(19) **United States**(12) **Patent Application Publication****Koulakis et al.**(10) **Pub. No.: US 2022/0352867 A1**(43) **Pub. Date: Nov. 3, 2022**

(54) **TRANSVERSELY-EXCITED FILM BULK ACOUSTIC RESONATOR WITH OXIDE STRIP ACOUSTIC CONFINEMENT STRUCTURES**

H03H 9/13 (2006.01)*H03H 9/17* (2006.01)*H03H 9/56* (2006.01)(52) **U.S. Cl.**

CPC *H03H 9/02228* (2013.01); *H03H 3/02* (2013.01); *H03H 9/02031* (2013.01); *H03H 9/13* (2013.01); *H03H 9/174* (2013.01); *H03H 9/176* (2013.01); *H03H 9/562* (2013.01); *H03H 9/564* (2013.01); *H03H 2003/023* (2013.01)

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(21) Appl. No.: **17/542,290**(22) Filed: **Dec. 3, 2021****Related U.S. Application Data**

(60) Provisional application No. 63/182,465, filed on Apr. 30, 2021, provisional application No. 63/187,932, filed on May 12, 2021, provisional application No. 63/191,897, filed on May 21, 2021, provisional application No. 63/208,503, filed on Jun. 9, 2021.

Publication Classification(51) **Int. Cl.***H03H 9/02* (2006.01)*H03H 3/02* (2006.01)(57) **ABSTRACT**

Acoustic resonators, filters, and methods. An acoustic resonator includes a substrate, piezoelectric plate, and a diaphragm comprising a portion of the piezoelectric plate spanning a cavity in a substrate. An interdigital transducer (IDT) on a front surface of the piezoelectric plate includes first and second sets of interleaved interdigital transducer (IDT) fingers extending from first and second busbars respectively. The interleaved IDT fingers are on the diaphragm. Overlapping portions of the interleaved IDT fingers define an aperture of the acoustic resonator. A first dielectric strip overlaps the IDT fingers in a first margin of the aperture and extends into a first gap between the first margin and the first busbar. A second dielectric strip overlaps the IDT fingers in a second margin of the aperture and extends into a second gap between the second margin and the second busbar.

