

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2024/0223156 A1 Goto et al.

Jul. 4, 2024 (43) **Pub. Date:**

(54) ACOUSTIC WAVE DEVICE WITH PARTIALLY ROUNDED INTERDIGITAL TRANSDUCER ELECTRODE

(71) Applicant: Skyworks Solutions, Inc., Irvine, CA (US)

(72) Inventors: Rei Goto, Osaka-Shi (JP); Tatsuya Fujii, Nagaokakyo-Shi (JP)

(21) Appl. No.: 18/530,655

(22) Filed: Dec. 6, 2023

Related U.S. Application Data

(60) Provisional application No. 63/477,792, filed on Dec. 29, 2022, provisional application No. 63/477,775, filed on Dec. 29, 2022, provisional application No. 63/477,783, filed on Dec. 29, 2022.

Publication Classification

(51) Int. Cl. H03H 9/145 (2006.01)H03H 3/08 (2006.01)H03H 9/25 (2006.01)

(52)U.S. Cl. H03H 9/14538 (2013.01); H03H 3/08 CPC (2013.01); H03H 9/25 (2013.01)

(57)ABSTRACT

An acoustic wave device is disclosed. The acoustic wave device can include a piezoelectric layer, and an interdigital transducer electrode formed with the piezoelectric layer. The interdigital transducer electrode includes a finger extending from a bus bar. The finger has a first region and a second region between the first region and the bus bar. The finger has a lower side, an upper side opposite the lower side, and a sidewall between the lower side and the upper side. A corner between the upper side and the sidewall is more rounded in the second region than in the first region.

