

FREQUENCY CONTROL OF SPURIOUS SHEAR HORIZONTAL MODE BY ADDING HIGH VELOCITY LAYER IN A LITHIUM NIOBATE FILTER

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ABSTRACT

An electronic device comprises a first surface acoustic wave (SAW) resonator and a second SAW resonator, each including interleaved interdigital transducer (IDT) electrodes, the first and second SAW resonators being formed on a same piezoelectric substrate, the first SAW resonator having IDT electrodes with a different finger pitch than the IDT electrodes of the second SAW resonator; a dielectric material layer disposed on the IDT electrodes of the first and second SAW resonators; and a high velocity layer disposed within the dielectric material layer disposed on the IDT electrodes of the first SAW resonator, the second SAW resonator lacking a high velocity layer disposed within the dielectric material layer disposed on the IDT electrodes.

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Figure 8