

ABSTRACT

A longitudinally coupled surface acoustic wave filter includes a first, second and third IDT electrodes and a first and second reflector electrodes on a piezoelectric substrate. The IDT electrodes each include a primary excitation
5 region having $\lambda/2$ electrode finger pitches, where λ is the wavelength of a surface acoustic wave. The primary excitation region is phase-shifted by a certain amount in accordance with a desired passband frequency response. The IDT electrodes further include a plurality of secondary excitation regions each having electrode finger pitches different from the $\lambda/2$ pitches. All of the
10 electrode finger pitches of the surface acoustic wave filter thus range from $0.8\lambda/2$ to $1.2\lambda/2$, so that a loss increase caused by discontinuity between the IDT electrodes is prevented.



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