

ABSTRACT

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PIEZOELECTRIC RESONATORS

A single-chip piezoelectric resonator using SH type surface waves has an interdigital transducer formed on a piezoelectric substrate. The interdigital
5 transducer is designed to have two or more resonance characteristics, for example, by using a pair of thinned-out comb-shaped electrodes with mutually interlocking fingers protruding towards each other. Such an interdigital transducer may be formed also by
10 using a pair of comb-shaped electrodes with the lengths of their mutually pointing fingers varied. A trap circuit with two sufficiently separated trap frequencies and improved attenuation characteristics at these two trap frequencies can be formed by
15 two interdigital transducers of the kind described above on a single piezoelectric substrate so as to provide two resonant units each having two resonance characteristics.

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