



ABSTRACT OF THE DISCLOSURE

An edge reflection type longitudinally coupled SAW resonator filter includes a surface acoustic wave substrate having a first end surface and a second end surface which are arranged at opposite ends of the substrate. A plurality of edge reflection, longitudinally coupled resonator filter units are arranged on the surface acoustic wave substrate such that a surface acoustic wave is reflected between the first end surface and the second end surface of the surface acoustic wave substrate. A connecting conductive portion is arranged to electrically connect the plurality of the longitudinally coupled resonator filter units. Each of the longitudinally coupled resonator filter units has a plurality of interdigital transducers aligned in a surface acoustic wave propagating direction. The number of pairs of electrode fingers in the plurality of the longitudinally coupled resonator filter units is equal. In addition, a ratio of the numbers of pairs of the electrode fingers between the plurality of the interdigital transducers in at least one of the plurality of the longitudinally coupled resonator filter units is different from ratios of the numbers of pairs of the electrode fingers between the plurality of the interdigital transducers in the other longitudinally coupled resonator filter units.