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SAW DEVICE AND COMMUNICATION DEVICE USING SAW DEVICE

ABSTRACT

A SAW device comprises input/output interdigital transducer (IDT) electrodes(11,12) provided on piezoelectric substrates (10), a first reflector electrode (13) following the input IDT electrode (11), and a second reflector electrode (14) preceding the output IDT electrode (12). The device satisfies the following inequality (1) to provide preferable characteristics in a pass band: $2(\theta-5) \leqq \tan^{-1}(D/L) \leqq 2(\theta+5)$ where θ: the inclination (in degree, except zero) of the first or second reflector electrode of the input and output IDT electrodes with respect to a plane perpendicular to the direction in which surface acoustic waves travel. D: the pitch (in micron) of the input and output IDT electrodes in the direction in which surface acoustic waves travel. L: the pitch (in micron) of the first and second reflector electrodes.

Figure 1

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