This Sheet Has Been Replaced



P/1071-100

ABSTRACT OF THE DISCLOSURE

A free edge reflective-type surface wave resonator for reflecting SH-type surface ~~{wave}~~ waves between two confronting free edges of a piezoelectric substrate~~{, including}~~ includes a piezoelectric substrate having ~~{the}~~ two confronting free edges~~{, and an IDT (interdigital transducer) which is}~~ and an interdigital transducer having a plurality of electrode fingers having cross widths which are weighted by a cross width weighting method or an electrode thinning method. The weighting of the cross widths is performed so that an attenuation pole of a main lobe is located ~~{out}~~ outside of ~~{the}~~ a frequency of an attenuation pole of a normal ~~{type}~~ non-weighted IDT which has the same number of electrode ~~{-}~~finger pairs as the weighted IDT, and plural resonance characteristics~~{, that is}~~. Consequently, a resonance characteristic ~~{due to}~~ determined by the main lobe and a resonance characteristic ~~{due to}~~ determined by the attenuation pole of the normal ~~{type}~~ IDT are obtained.

~~{FIGURES~~
~~FIGS. 1, 4, 5, 6~~
~~ATTENUATION (dB), FREQUENCY~~
~~FIG. 7~~
~~IMPEDANCE, FREQUENCY}~~