Abstracts

800-MHz High-Performance SAW Filter Using New Resonant Configuration

M. Hikita, H. Kojima, T. Tabuchi and Y. Kinoshita. "800-MHz High-Performance SAW Filter Using New Resonant Configuration." 1985 Transactions on Microwave Theory and Techniques 33.6 (Jun. 1985 [T-MTT]): 510-518.

A new high-performance surface-acoustic-wave (SAW) filter for use in mobile telephones is presented in this paper. The design for the actual realization of the new filter is examined, from the new filter configuration to the final device operation, A low-loss weighting technique in an interdigital transducer (IDT), a new resonant structure, computer simulation procedures, and material properties are treated. Experimental results with this SAW filter included an 830-MHz center frequency, 3-percent bandwidth, insertion loss of as low as 3.5 ~ 4.0 dB, and 50-dB sidelobe suppression filter.

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