Abstracts

New method of computation of electrical Y-matrix for arbitrarily connected multielement SAW devices

We treat surface-acoustic wave (SAW) devices as an arbitrary multielement system. To describe it, a modified form of the chain matrix (E-matrix) is introduced. The E-matrix has a property of turning the calculation of the transfer matrix of this system into a simple multiplication procedure. This allows one to perform computation of electrical response of almost any type of SAW device since the total transfer matrix could be reduced to a Y-matrix. Examples and simulation results confirming the method described are shown.

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