Abstracts

A Bleustein-Gulyaev-Shimizu Wave Resonator Having Resonances for TV and VCR Traps (Dec. 1996, Part II [T-MTT])

M. Kadota, J. Ago and H. Horiuchi. "A Bleustein-Gulyaev-Shimizu Wave Resonator Having Resonances for TV and VCR Traps (Dec. 1996, Part II [T-MTT])." 1996 Transactions on Microwave Theory and Techniques 44.12 (Dec. 1996, Part II [T-MTT] (1996 Symposium Issue)): 2758-2762.

A Bleustein-Gulyaev-Shimizu (BGS) wave has only a shear horizontal (SH) wave showing a complete reflection at a free edge of a substrate. By utilizing this property, a small BGS resonator having one resonance without reflector electrodes is realized. In the paper, using the responses exited by a weighted interdigital transducer (IDT) and generated by the 2N ±2th mode's complete reflections at free edges of a ceramic substrate, we realized a new type of BGS resonator having resonances without reflector electrodes. This resonator showed sufficient trap attenuations for practical use at both adjacent picture carrier frequency (f/sub ap/) and adjacent sound carrier one (f/sub as/) in the TV and VCR video intermediate frequency (VIF) circuit.

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