

# Abstracts

## Delay Distortion in Crystal Mixers

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*T. Kawahashi and T. Uchida. "Delay Distortion in Crystal Mixers." 1959 Transactions on Microwave Theory and Techniques 7.2 (Apr. 1959 [T-MTT]): 247-256.*

Delay distortion is one of the most important characteristics in the frequency-modulated supermultichannel microwave repeater. With regard to receiving crystal mixers, the cause, shape, vanishing condition, etc., of delay distortion are analyzed, and the experiments show good agreement with the results of this analysis. To eliminate this delay distortion, the electrical length between the crystal and the image suppression filter must be determined so that the image frequency impedance may not be infinite in a desired frequency band, or the intermediate frequency load impedance must be fixed at a certain definite value.

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