

Abstracts

Pulse Waveform Degradation Due to Dispersion in Waveguide (Further Comments)

C.M. Knop. "Pulse Waveform Degradation Due to Dispersion in Waveguide (Further Comments)." 1970 Transactions on Microwave Theory and Techniques 18.9 (Sep. 1970 [T-MTT]): 663-665.

A concise and careful review of the Elliott analysis of how a pulsed carrier wave is distorted after propagating down a waveguide is given. This review, in conjunction with the more recent work of Haskell and Case, derives the time region for which the Elliott (corrected) solution is valid. It is shown that if the pulse contains a sufficient number of carrier cycles, and if the guide is long enough compared to a free-space wavelength at the carrier frequency, then the Elliott solution is valid for practically all times.

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