Abstracts

Distortion of Pulsed Signals in Microstrip Transmission Lines Using Short-Time Fourier Transform

S.R. Kunasani and C. Nguyenj. "Distortion of Pulsed Signals in Microstrip Transmission Lines Using Short-Time Fourier Transform." 1996 Microwave and Guided Wave Letters 6.1 (Jan. 1996 [MGWL]): 1-3.

Short-time Fourier transform (STFT) is used to window the propagation of pulses traveling in microstrip lines. Characteristics of dc and Gaussian pulses are studied based on their zoom-in time-amplitude windows, fast Fourier transforms, and time-frequency results. Behaviors of dc and Guassian pulses at a certain time along the length of a microstrip line are also examined. The STFT technique can be used to observe the distortion locally at any time and at any point in the microstrip lines and is especially attractive when the microstrip lines are subjected to complex signals, which vary substantially over a short duration.

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