Abstracts

Theory of Time-Domain Quasi-TEM Modes in Inhomogeneous Multiconductor Lines

Theory for quasi-TEM modes propagating in a transversely inhomogeneous (multidielectric), longitudinally uniform transmission line, previously derived for time-harmonic waves, is derived for transient signals. It is seen that, while the starting point for the theory is completely different, the result is similar to the time-harmonic theory, and previously derived properties for propagating modes also apply in the transient case. The range of applicability is discussed with a simple example.

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