

Abstracts

Conductor Geometry Independence of Phase Velocity in TEM-Mode Transmission Lines (Letters)

*H.E. Green. "Conductor Geometry Independence of Phase Velocity in TEM-Mode Transmission Lines (Letters)." 1989 *Transactions on Microwave Theory and Techniques* 37.4 (Apr. 1989 [T-MTT]): 805-806.*

It is well known that the phase velocity of a wave in any two-conductor, TEM-mode transmission line having a homogeneous dielectric filling depends only on the properties of the dielectric and not at all on the conductor geometry. Normally this is demonstrated starting from Maxwell's equations. However it is interesting to recall that transmission line theory can be studied from circuit principles alone without recourse to electrodynamics.

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