Abstracts

Derivation of analytical dyadic Green's function modifications for microstrip attenuation in transmission layered structures

Rigorous derivation of the correction to the dyadic Green's function for a microstrip structure containing complex layered media is carried out for imperfect metallization. A hierarchy of formulas is found consistent with a full-wave electromagnetic code employing zero thickness extent conductors for the guiding structure metal. At the bottom of the hierarchy are formulas which are only dependent on the conductor geometry and material properties. Numerical examples show the sensitivity of the attenuation constant to these formulas.

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