

Scattering By A Dielectric Coated Conducting Cylinder Loading Asemicircular Channel In A Ground Plane

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Summary

The boundary value method is used to derive a dual series solution of a plane wave incident on a dielectric coated conducting circular cylinder imbedded in a semicircular channel in a ground plane. The partial orthogonality of the trigonometric functions is used to obtain the scattering coefficients. The resulting infinite series is then truncated to a finite number of terms to produce numerical results. Special cases are first introduced for comparison with the corresponding published results. The comparison shows an excellent agreement in all cases. More general examples are then introduced

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