

Radiation Characteristic Of Slots On Conducting Circular Cylindercovered By Eccentric Dielectric Cylinder

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Summary

The radiation characteristics of axial slots on a circular conducting cylinder covered by an eccentric dielectric cylinder are investigated. A dual infinite-series solution based on the boundary-value method is obtained with the aid of the addition theorem of Bessel functions. The dual infinite series involved in the solution is then properly truncated to generate numerical results. Comparison with published data for concentric cylinders shows excellent agreement. Several interesting radiation characteristics corresponding to new geometries of the coated slot cylindrical antenna are presented

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