

Abstracts

The ψ_0 =constant mode in free-space and conical waveguides

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ψ_0 =constant is one of the Neumann eigenfunctions used to expand the axial H component in a cylindrical waveguide. It cannot be omitted, lest erroneous results are obtained in, for example, aperture coupling with the exterior region. This paper investigates whether the same situation holds for a conical waveguide, and extends the analysis to free space, which may be considered as a radial waveguide.

[Return to main document.](#)