Abstracts

A Novel Leaky-Mode Cylindrical Dielectric Resonator Used as Feeds of Omnidirectional Antenna for Wireless Communications

T. Wang, H. An, K. Wu, J.-J. Laurin and R.G. Bosisio. "A Novel Leaky-Mode Cylindrical Dielectric Resonator Used as Feeds of Omnidirectional Antenna for Wireless Communications." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 657-660.

This paper presents a novel leaky-mode cylindrical dielectric resonator including mounting holder and radial-step, which can be used as feeds of a class of omnidirectional antennas suitable for wireless communication systems. An enhanced spectral domain (SDA) approach is extended to determining resonant properties of the proposed resonator. Numerical results are focused on low-order leaky TM-mode properties, The effects of different structural parameters on resonant frequencies and quality factors are studied in detail. Theoretical results are verified by experiments.

❑ Return to main document.