

# Abstracts

## Quarter-Wave Fresnel Zone Planar Lens and Antenna

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*H.D. Hristov and M.H.A.J. Herben. "Quarter-Wave Fresnel Zone Planar Lens and Antenna." 1995 Microwave and Guided Wave Letters 5.8 (Aug. 1995 [MGWL]): 249-251.*

A new variety of the Fresnel zone planar lens with enhanced focusing quality is proposed. Each full-wave zone is divided into four quarter-wave subzones, which are covered by dielectric rings having equal thickness but different permittivities. Based on this planar lens configuration, a transmissive-type Fresnel-zone antenna for DBS-reception with more than 50% aperture efficiency is developed and examined theoretically.

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