

# Abstracts

## Millimeter-Wave Fresnel Zone Planar Lens and Antenna (1995 Vol. II [MWSYM])

---

*H.D. Hristov and M.H.A.J. Herben. "Millimeter-Wave Fresnel Zone Planar Lens and Antenna (1995 Vol. II [MWSYM])." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 553-556.*

A new variety of millimeter-wave Fresnel zone planar lens with enhanced focusing quality is described. Each full-wave zone is divided into four quarter-wave subzones covered by equal in thickness dielectric rings having different permittivities. More precise expression for the lens thickness is deduced. On the base of this planar lens configuration a Fresnel-zone lens antenna with about 52% aperture efficiency for a frequency of 62.1GHz is developed and examined theoretically.

[Return to main document.](#)