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Design and Fabrication of Axially Corrugated Gaussian Profiled Horn Antenna

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Chapter

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Abstract

In this chapter, the novel design of the corrugated horn antenna is presented. The axially corrugated Gaussian profiled horn is a dual profiled corrugated horn antenna. The corrugated horn is a novel design for S-band applications. The corrugated horn has a length of 2.6λ and an aperture radius of 1.3λ only. The S_{11} -parameter and cross-polarization of the novel corrugated horn are better than -20 dB for the whole S-band. The novel corrugated horn is compact in size with broader bandwidth performance.

Keywords

[Corrugated horn](#) [Axial profile](#) [Gaussian profile](#) [S-band](#) [Satellite applications](#)This is a preview of subscription content, [log in](#) to check access.

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