

IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Advances in Space-based Network and Communication Technologies (7)

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DESIGN AND OPTIMIZATION OF A PATCH ANTENNA FOR KU-BAND SATELLITE INTERNET
RECEPTION

Abstract

This paper presents the design and optimization of a patch antenna for receiving satellite internet signals in the Ku band. The antenna's gain, directivity, and impedance matching are optimized to ensure efficient reception of Ku-band signals from satellite transponders. The study analyses and optimizes various design parameters, such as patch dimensions, substrate material properties, and feeding techniques, to achieve the desired performance. The antenna design proposed provides a cost-effective and compact solution for receiving satellite internet in the Ku band, making it suitable for both commercial and consumer applications.