SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
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Author: Dr. Gaojian Kang
Beijing Institute of Aerospace Systems Engineering, China, gjkang.bj@gmail.com

Mr. Xinglai Wang
Beijing Institute of Aerospace Systems Engineering, China, gjkang.bj@gmail.com
Mr. Rui Song
Beijing Institute of Aerospace Systems Engineering, China, gjkang.bj@gmail.com

A COMPACT BROADBAND ANTENNA FOR WIRELESS TERMINALS IN TELEMETRY AND TELECOMMUNICATION SYSTEMS

Abstract

With the rapid development of modern wireless communication system and telemetry system, there is great requirement for high data rate and high capacity to support multi-service, e.g. telemetering in telemetry system and video service in wireless telecommunication system. The antennas, as the key transceiving components of wireless communication terminals, affect greatly the system performance. Hence, how to design compact antenna with good performance at wireless terminals is still an important issue. In this paper, a compact broadband antenna with a parasitic radiating strip, which could meet the demand for high data and high capacity, is proposed. By adding parasitic strip into an antenna, an additional electromagnetic resonant mode is introduced and further the bandwidth of the antenna is broadened. The parasitic strip adopts meandered-line structure to reduce occupying area. The measured -10dB impedance bandwidth is 960MHz (1920-2880 MHz), covering the UMTS, WiBro, WLAN and WiMAX bands in modern wireless communication system and the frequency band used in telemetry system.