

## عنوان مقاله:

A Dual-Band Rejection of WLAN/WiMAX in UWB Antenna Using Slotted EBG Structure

## محل انتشار:

اولین کنفرانس بین المللی دستاوردهای نوین پژوهشی در مهندسی برق و کامپیوتر (سال: 1395)

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## خلاصه مقاله:

This paper demonstrates a novel technique for notching WiMAX and WLAN frequency bands by means of slotted electromagnetic band-gap(EBG) structure. A simple design of microstrip dipole antenna, which is fed by a very simple microstrip line structure, is used as the reference antenna. Then, the antenna is integrated with a simple slotted EBG structure near the feed line for providing notch properties. The proposed EBG structure provides two band rejection characteristics by means of utilizing both left-handed properties of mushroom structure and on the other hand by taking the advantage of longitudinal current flow over the slotted EBG structure. The two demonstrated notch bands can be controlled by mushroom geometry parameters and also they are independent of the initial antenna design. This leads to a little pattern deterioration along the desired bands. The designed antennas and their performance characteristics were simulated by High Frequency Structure Simulator(HFSS) and valuated by CST Microwave studio. Test results of the fabricated designs show a good correlation with simulated outcomes, validating the design principles.

## کلمات کلیدی:

(band rejection; electromagnetic bandgap structure (EBG); microstrip antennas; ultra wideband(UWB

## لینک ثابت مقاله در پایگاه سیویلیکا:

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