

عنوان مقاله:

A Rectangular Defected Ground Structure (DGS) for Reduction of Mutual Coupling Between Closely-Spaced Microstrip Antennas

محل انتشار:

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خلاصه مقاله:

A sufficient and simple method to minimize the mutual coupling between closely-spaced microstrip antennas in a Hplane array format, operating at the same frequency is presented. More isolation can be provided through multiple rectangular defected ground structures (DGSs) between the antennas. Interelement mutual coupling before and after using the proposed DGSs is investigated. The length, width and number of the rectangular DGSs have been optimized for moremitigating the mutual coupling (S12). Position of the DGSs is also the other important factor to have a best performance. By using this technique, more than 31 dB isolation between two patch antennas with a side by side distance of only 1/4 freespace wavelength at resonance frequency of 9.2 GHz can be obtained.

کلمات کلیدی:

Mutual coupling reduction, patch antenna array, defected ground structures

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