

Title: Low Profile Multi-Band Antenna for Mobile Communications

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Abstract: In this paper, the design of low profile antennas by using Electromagnetic Band Gap (EBG) structures is introduced. Taking advantage of the fact that they can behave as Perfect Magnetic Conductor (PMC), it is shown that these structures exhibit dual band in-phase reflection at WLAN (Wireless Local Area Network) bands, the 2.4 GHz and 5.2 GHz bands. These structures are applied to PIFA (Planar Inverted-F Antenna) and the results show that it is possible to obtain low profile PIFA's.

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