DESIGN OF L-SLIT MICROSTRIP PATCH ANTENNA FOR WIMAX & HIPERLAN APPLICATIONS

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ABSTRACT

A single feed quad band compact rectangular microstrip antenna is presented in this paper. L slit is introduced on the edge of the patch to reduce the resonant frequency. For the proposed antenna four resonant frequencies are obtained at 2.5 GHz, 3.46 GHz, 4.76 and 5.68 GHz with bandwidth of 11.26 MHz, 26.29 MHz, 92.11 MHz , 50.62 MHz &return loss –29.09 dB , -15.23 dB, -23.73 dB & -19.93 dB respectively. An extensive analysis of the return loss, radiation pattern, gain and efficiency of the proposed antenna is presented. It is developed to operate in the WiMax & HIPERLAN applications. The size of the antenna has been reduced by 69% when compared to a conventional microstrip patch.

KEYWORDS: Conventional, Compact, Quad Band, Slit.