Abstract

In this paper, a quad-band H-slot microstrip patch antenna for WiMAX application is presented. The radiation performance such as VSWR, return loss, radiation pattern and gain of the antenna are simulated using Ansoft HFSS and presented. Radiating patch lies on the FR4_epoxy substrate which is having dielectric constant 4.1 and height 1.5mm. Coaxial feeding technique is used to feed the antenna with 50 ohm impedance. This proposed antenna covers four frequency bands of 3.41-3.51 GHz, 4.64-4.75 GHz, 5.45-5.63 GHz and 6.38-6.50 GHz respectively. This proposed antenna enhances the maximum return loss of -16.92 dB at 3.46 GHz, -18 dB at 4.73 GHz, -17.50 dB at 5.55 GHz and -17.45 dB at 6.45 GHz frequencies.

References


Ansoft HFSS ver. 13, Ansoft Corporation. Canonsburg, PA, USA.

Index Terms

Computer Science
Communications
Keywords
Patch antenna; quad-band; Radiation pattern; H-slot; VSWR; WiMAX.