Abstract

An improved PIFA antenna is proposed in this paper. This antenna is with ground dimensions of 40 x 60 (in mm) and a top conducting plate of 20 x 10 (mm) is considered. The proposed design is targeted to achieve multiband characteristics. For this purpose, the use of rectangular split ring resonator (R-SRR) is taken into consideration. The simulated results showed good S11 return loss characteristics at three frequencies 2.21 GHz, 3.7 GHz and 5.23 GHz with gain values in 5.41 dB, 2.6 dB and 6.91 dB respectively. These frequencies are best applied for UMTS 3G expansion band (1.9 GHz – 2.2 GHz), WiMax (3.3 GHz – 3.8 GHz), WiFi (4.9 GHz -5.9 GHz) applications.


Index Terms

Computer Science  Communications
Keywords

Planar Inverted F antenna, Split ring resonator, WiMax, WiFi.