A rectangular microstrip patch antenna is presented in this paper for 915 MHz band applications. These applications include ZigBee and Bluetooth. The potential of ZigBee technology is enormous due to its tremendous advantages such as the capability to provide extremely fast data rates at short transmission distances while requiring very low power dissipation. Recently, printed antennas have played a major role in development of antennas with different frequencies. The construction of proposed antenna is done on FR-4 epoxy substrate with thickness of 1.6 mm and εr = 4.4. The proposed antenna operates from 902MHz to 928MHz with good omnidirectional radiation patterns, its narrow band impedance bandwidth protect it from interference problem from other applications in ISM band. Proposed antenna has compact size of (60x30)mm2. It has advantages in simple design, narrow bandwidth, and compact in size and easy in fabrication. The measured result is in good agreement with simulated one.
Design and Analysis of Rectangular Microstrip Patch Antenna for ZigBee Applications


Index Terms

Computer Science Wireless

Keywords
ZigBee Antenna; ISM Band Antenna; Bluetooth Antenna; Omnidirectional Antenna.