

Reconfigurable Inverted U Slot Antenna with Switching Mechanism for Wireless Applications

Sowjanya Kesana¹, Arunabala C², V. Sai Lalitha Sri Harshini³, T. Priyanka⁴, P. Nikhitha⁵, V. Swetha⁶

Assistant Professor, Department of ECE, KKR & KSR Institute of Technology and Sciences, Guntur, India¹

Professor, Department of ECE, KKR & KSR Institute of Technology and Sciences, Guntur, India²

Students, Department of ECE, KKR & KSR Institute of Technology and Sciences, Guntur, India^{3,4,5,6}

Abstract: Frequency reconfigurable antennas are mostly used for many wireless applications. The proposed antenna uses a PIN diode to switch between 2.45 to 3.93 GHz. The ultra-wideband is obtained by a partial rectangular ground plane with an inverted U slot and the narrowband is obtained by adding a parasitic element electrically connected to the ground by positive bias of PIN diode. Frequency Reconfigurable antennas can adjust dynamically its frequency of operation as per the requirement. For better designing of antenna and to get better accurate results, we usually change the physical dimensions of the antenna. It is lengthy and time taking process if we consider this method. Comparison and selection in designing of antennas will be difficult if we keep on changing the dimensions. So, we prefer Reconfigurability.

Keywords: Frequency Reconfigurable, Inverted U Slot, PIN diode, Microstrip antenna, LAN

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