Wideband Multi-Polarized Microstrip Patch Antenna for Wireless Communication

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Abstract

A compact monopole antenna having wide bandwidth with multi-bands as well as dual polarization characteristics for wireless communication is presented. To get impedance matching for the SMA conductor, the antenna is fed up by Micro-strip feeding technique. In this, the antenna is embedded by an L-shaped slots on the ground plane, to improve the bandwidth by excited the addition of resonance. To generate the multiband characteristic, with dual polarization, the inverted E-shaped parasitic structured as a replacement is used in the back of the substrate and upper side of the ground. The measured results show that the proposed dual polarized monopole antenna offers a very high gain 7 dB with 10 dB return loss with multi notched bands, covering all the (3.18-3.66) GHz Wi-MAX, (5.18-6.22) GHz WLAN, (6.89-9.07) GHz X bands.

References

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**Index Terms**

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**Keywords**

Band Notch; Dual Polarization; L-shaped slot; Micro-strip feeding; Wideband