

# A Printed Tree-like Monopole Antenna for Ultra-wide Band Applications with Resonant Link

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## Abstract

In this paper, a novel tree-like antenna is presented, the antenna is composed of tree-like radiating patch and four resonant links on the ground plane, and fed with CPW and microstrip line. The antenna has been fabricated and measured, the simulated and measured radiation patterns and impedance bandwidth have been obtained. The physical dimensions of the proposed antenna is  $61.18 \times 29.7 \times 1.52$ , The measured impedance bandwidth(-10dB) is 106.8%(1.62GHz-5.33GHz), and the peak gain is 4.13dBi. The ultimate goal of this paper is to develop a stable gain, wide impedance bandwidth, low-profile, and low-cost antenna for wireless communication.

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