

# Design and Optimization of Compact ACS-Fed Microstrip Antenna for UWB with Notch Band Rejection

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**Abstract:** *In This article, a compact Asymmetric Coplanar Strip (ACS) Feed Microstrip antenna has been summarized and reported. Designed antenna has very compact size of 12m x 24 mm and has been simulated over the CADFEKO EM Simulation tool. Proposed ACS antenna has been simulated against the Ultra-Wideband (UWB) operating region with frequency of 3.10 GHz to 10.60 GHz. Simulated antenna shows <-10 dB reflection coefficient bandwidth all over the UWB region and poses 90% of operating efficiency. Proposed antenna has been modelled with semicircular patch. Beveling structure have been adopted for proper UWB operation and gain enhancement. Antenna has been simulated with FR-4 dielectric substrate with effective dielectric constant of 4.4 and loss tangent of 0.02..*

**Keywords:** Asymmetric Coplanar Strip, Compact antenna, CADFEKO, Microstrip antenna, Ultra-Wideband

