

# Dual- Polarized CPW- Fed Conformal Antenna for Ultra-Wideband Applications

**N. Sahnoune, I. Messaoudene, T. A. Denidni, A. Benghalia**

**Abstract :** In this paper, we introduce a new compact dual-polarized conformal slot antenna fed by two orthogonal CPW semi-discs. To achieve a high isolation between the two ports, a strip is inserted diagonally in the ground plane. The simulations are done using the CST Microwave Studio software. The simulated results show that the proposed antenna provides an impedance bandwidth enough to cover the Ultra wideband spectrum, and exhibits a good isolation across the operating band. These features make the proposed concept very attractive for conformal ultra-wideband (UWB) antenna applications which used polarization-diversity technique.

**Keywords :** polarization- diversity technique, ultra-wideband (UWB) antenna