



ECE-22

A Half Circular Ultra-Wideband Antenna for Wireless Applications

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This study introduces the design of half circular structure Ultra-Wideband UWB antenna. The antenna design objective is to cover the complete Ultra-Wideband specified by the FCC. The antenna has been implemented in microstrip configuration and printed on Rogers Ro4350 substrate with dielectric constant of 3.66 and thickness of 1.52 mm. The proposed antenna has a compact structure such that its dimensions are only 40×40 mm². The proposed antenna design is verified using electromagnetic simulation software package (HFSS). Moreover, measured results have shown good agreement between simulation of the proposed design and the actual implementation. Having wideband characteristic, compact and planar structure, the proposed antenna satisfies the requirements of UWB wireless communication applications.