

This thesis focuses on the analysis and design of a novel structures of microstrip bandpass filter for UWB applications. This work is divided into two parts: In the first part, three novel topologies of microstrip (UWB) bandpass filters (BPFs) are esigned including two with the use of the defect in the ground plane technique (known by DGS: Defected Ground Structure). For the second part, three different (UWB) passband filter structures with notches are also designed and presented. The easured and simulation results have shown good agreement which validate the different proposed structures and the adopted design procedures