

Compact UWB Bandpass Filter based on Microstrip-to-Stripline Transitions

Elena Pancera, Thomas Zwick and Werner Wiesbeck

Abstract – In this article a compact band-pass filter for Ultra Wideband (UWB) applications is presented. The filter structure is based on a back-to-back microstrip line to slot line transition. The filter behaviour is investigated in frequency domain and in time domain, in order to analyze the pulse-preserving capabilities of the proposed structure. The realized filter is designed for the European UWB regulation and has the advantage of having small dimensions and good frequency domain and time domain performances.