Abstracts

A design of the novel coupled line bandpass filter using defected ground structure

Jun-Sik Yun, Geun-Young Kim, Jun-Seok Park, Dal Ahn, Kwang-Yong Kang and Jae-Bong Lim. "A design of the novel coupled line bandpass filter using defected ground structure." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 327-330.

In this paper, a novel coupled line bandpass filter with a DGS (Defected Ground Structure) is proposed to realize a compact size with low insertion loss characteristic. The proposed bandpass filter can provide an attenuation pole due to the resonance characteristic of the DGS. The equivalent circuit parameters for the DGS are extracted by using an EM simulation process and the circuit analysis method. The design method for the proposed 3-pole bandpass filter is derived based on coupled line filter theory and the derived equivalent circuit of the DGS. The experimental results show an excellent agreement with theoretical simulation results.

❑ Return to main document.