

## New compact bandpass filter using microstrip $\lambda/4$ resonators with open stub inverter

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Jae-Ryong Lee, Jeong-Hoon Cho and Sang-Won Yun. "New compact bandpass filter using microstrip  $\lambda/4$  resonators with open stub inverter." 2000 Microwave and Guided Wave Letters 10.12 (Dec. 2000 [MGWL]): 526-527.

A novel bandpass filter using microstrip quarter-wavelength resonators is proposed. The proposed filter consists of the open stub inverter between quarter-wavelength resonators, which results in a compact design as well as low loss. The tapped open stub not only works as a K-inverter but also introduces an attenuation pole. The attenuation pole can be located at the upper or lower side of the passband by adjusting the open stub length. A two-pole Chebyshev bandpass filter is designed and tested at 1.99 GHz. A four-pole bandpass filter of elliptic-type performance is also designed and tested at 2.015 GHz.

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