# Abstracts

## A novel surface-mountable millimeter-wave bandpass filter

*N. Kinayman, C. Eswarappa, N. Jain and A. Buckle. "A novel surface-mountable millimeter-wave bandpass filter." 2002 Microwave and Wireless Components Letters 12.3 (Mar. 2002 [MWCL]): 76-78.*

A novel millimeter-wave waveguide bandpass filter structure suitable for surface mounting is introduced. The filter is constructed using a rectangular waveguide formed in MMIC substrate employing recently introduced microstrip-to-waveguide transducer. Input and output of the filter are implemented as microstrip lines. The transitions between the microstrip lines and the rectangular waveguide are implemented by using the microstrip-to-waveguide transition. The waveguide filter structure is surface-mountable as flip-chip and can be manufactured using a MMIC process that makes it extremely accurate. It has potential applications in millimeter-wave systems like local multipoint distribution system (LMDS) and autonomous cruise control (ACC) radar for automobiles.

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