MATAHARI-SHAPED WIDE-BAND BANDPASS MICROWAVE FILTER

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ABSTRACT

A novel wide-band bandpass filter is proposed using interconnected identical quarter wavelength coupled lines that form a shape resembling the sun *(Matahari)*. The symmetrical structure is found to be capable of producing very wide bandwidth beyond 80%. In this paper, a total of six half-wavelength resonators were formed by using this topology and a 4th order bandpass response is obtained. The filter is fabricated on FR-4 substrate and measured experimentally to show the feasibility of the concept.

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