# Abstracts

## Investigation of Passive Bandpass Filters Using MMIC Technology

*M.I. Herman, S. Valas, D.M. McNay, R. Knust-Graichen and J.C. Chen. "Investigation of Passive Bandpass Filters Using MMIC Technology." 1992 Microwave and Guided Wave Letters 2.6 (Jun. 1992 [MGWL]): 228-230.*

It is a unique concept to dedicate a MMIC processing run solely for passive filter components. After going through preliminary design procedures, key parameters such as tap position, resonator length and coupling gaps may be studied in a controlled experiment to ascertain the optimal design. The MMIC fabrication process allows the design engineer the luxury of numerous filter designs within a single iteration and is extremely cost effective when compared with an equal number of hybrid MIC designs. MMIC filters are extremely small, highly reliable, and utilized existing processing technology. Passive filters are important when prime power consumption is limited as in advanced phased arrays for air and space applications. Ku-band MMIC parallel coupled, elliptical, and interdigital designs are investigated. The interdigital type yielded state-of-the-art performance and required the least substrate area.

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