Abstracts

A new active phase shifter using a vector sum method

S.J. Kim and N.H. Myung. "A new active phase shifter using a vector sum method." 2000 Microwave and Guided Wave Letters 10.6 (Jun. 2000 [MGWL]): 233-235.

In this letter, a new active phase shifter is proposed using a vector sum method, and it is shown that the proposed phase shifter is more efficient than the others in size, power, number of circuits, and gain. Also a unique digital phase control method of the circuit is suggested. The proposed scheme was designed and implemented using a Wilkinson power combiner/divider, a branch line 3 dB quadrature hybrid coupler and variable gain amplifiers (VGA's) using dual gate FETs (DGFETs). Furthermore, it is also shown that the proposed scheme is more efficient and works properly with the digital phase control method.

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