

Abstracts

Corporate and Tandem Structures for Combining Power from 3^N and $2N+1$ Oscillators

S. Mizushima, H. Kondoh and M. Ashiki. "Corporate and Tandem Structures for Combining Power from 3^N and $2N+1$ Oscillators." 1980 Transactions on Microwave Theory and Techniques 28.12 (Dec. 1980 [T-MTT] (1980 Symposium Issue)): 1428-1432.

The output power from three Gunn oscillators was combined using a short-slot coupler in conjunction with high-level injection locking with the power combining efficiency of about 100 percent at 9.7 GHz. Using the 3-oscillator structure as the building block, we constructed ($3^2 = 9$ -oscillator corporate structure and $(2 \times 4 + 1 =) 9$ - and $(2 \times 6 + 1 =) 13$ -oscillator tandem structures to demonstrate power combining efficiencies of 92, 95, and 93 percent, respectively, at 9.6 GHz.

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