Abstracts

A Nine-MESFET Two-Dimensional Power-Combining Array Employing an Extended Resonance Technique

A. Mortazawi and B.C. De Loach, Jr.. "A Nine-MESFET Two-Dimensional Power-Combining Array Employing an Extended Resonance Technique." 1993 Microwave and Guided Wave Letters 3.7 (Jul. 1993 [MGWL]): 214-216.

A new spatial power combining circuit that forms a single resonant structure from many active devices is introduced. A large signal analysis of this power combiner was performed. Based on these results, a two- and a nine-MESFET two-dimensional combiner driving two- and nine-patch antenna elements, respectively, were designed and fabricated. Measured results are also presented. An effective radiated power of 6.06 W at 7.33 GHz was obtained from the nine-MESFET combiner.

❑ Return to main document.