# Abstracts

## A Periodic Spatial Power Combining MESFET Oscillator

*J. Heinbockel, A. Mortazawi and T. Itoh. "A Periodic Spatial Power Combining MESFET Oscillator." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 545-548.*

A planar periodic MESFET based spatial power combiner is designed and fabricated in X-band. A microstrip transmission line is periodically connected to four MESFET devices driving a linear microstrip antenna array. An effective radiated power of 3.2 Watts is obtained for this structure at an oscillation frequency of 11.2 GHz. A frequency tuning bandwidth of 36 MHz is achieved, by varying the gate bias, Vgs.

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