

## Power-Bandwidth Considerations in the Design of MESFET Distributed Amplifiers

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*S.N. Prasad, J.B. Beyer and I.-S. Chang. "Power-Bandwidth Considerations in the Design of MESFET Distributed Amplifiers." 1988 Transactions on Microwave Theory and Techniques 36.7 (Jul. 1988 [T-MTT]): 1117-1123.*

Quantitative procedures are given for the design of MESFET distributed amplifiers using series capacitors in the device gate circuits. It is shown that the choice of series capacitors allows the designer to trade gain for bandwidth while maintaining a given gain-bandwidth product. It is also shown that the input power capability can be increased by the use of series capacitors when the device pinch-off is the power limiting factor. Furthermore, this paper also shows how the addition of series capacitors enables one to increase the gate periphery of an amplifier, which results in an increase in power-bandwidth product.

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