

Abstracts

One- and Two-Stage Spatial Amplifiers

T. Ivanov, A. Balasubramaniyan and A. Mortazawi. "One- and Two-Stage Spatial Amplifiers." 1995 Transactions on Microwave Theory and Techniques 43.9 (Sep. 1995, Part I [T-MTT]): 2138-2143.

This paper reports the design of nine HEMT, one-and two-stage spatial amplifiers which employ a common ground plane for receiving and transmitting port isolation and for heat sinking. By placing the spatial amplifier array in the near-field of the transmitting and receiving horns, a net gain of 8 dB was obtained. This paper also reports the first demonstration of a two-stage spatial amplifier constructed by employing near-field coupling of two single stage spatial amplifiers in free space.

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