Abstracts

A novel high efficiency multioctave amplifier using cascaded reactively terminated single-stage distributed amplifiers for EW system applications

A.S. Virdee and B.S. Virdee. "A novel high efficiency multioctave amplifier using cascaded reactively terminated single-stage distributed amplifiers for EW system applications." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. I [MWSYM]): 519-522 vol.1.

This paper demonstrates the design of a high efficiency amplifier employing a novel concept of cascaded reactively terminated single-stage distributed amplifier (CRTSSDA). In addition, CRTSSDA produces an available power gain significantly higher than conventional distributed amplifiers using the same number of active devices. Three-CRTSSDAs were designed and fabricated for EW application. The novel amplifier achieved an associated gain above 26 dB with flatness of </spl plusmn/0.5 dB, an average power added efficiency in access of 27% at an output power of 25 dBm over the 2-18 GHz band with an efficiency peak of 30% at 12 GHz.

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