Abstracts

A DC to 38-GHz Distributed Analog Multiplier Using InP HEMT's

Y. Imai, S. Kimura, Y. Umeda and T. Enoki. "A DC to 38-GHz Distributed Analog Multiplier Using InP HEMT's." 1994 Microwave and Guided Wave Letters 4.12 (Dec. 1994 [MGWL]): 399-401.

A novel distributed analog multiplier is proposed. It employs Gilbert cells as the unit section of the distributed structure. The single-ended analog multiplier MMIC's are built using 0.1-µm-gate-length InP HEMT's and uniplanar technology. The conversion gain is about -5 dB with LO power of 10 dBm. RF and IF 3-dB bandwidths are 38 and 16 GHz, respectively.

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