Abstracts

Capacitive-Division Traveling-Wave Amplifier with 340 GHz Gain-Bandwidth Product (1995 [MCS])

J. Pusl, B. Agarwal, R. Pullela, L.D. Nguyen, M.V. Le, M.J.W. Rodwell, L. Larson, J.F. Jensen, R.Y. Yu and M.G. Case. "Capacitive-Division Traveling-Wave Amplifier with 340 GHz Gain-Bandwidth Product (1995 [MCS])." 1995 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 95.1 (1995 [MCS]): 175-178.

We report capacitive-division traveling-wave amplifiers having measured rnidband gains of 8 dB with a 1-98 GHz 3-dB-bandwidth, and 11 dB gain with a 1-96 GHz bandwidth. The capacitive-division topology raises the input Q of each cell, giving the amplifier increased bandwidth over conventional designs with the same active device technology; using 0.15 µm gate length InGaAs/InAIAs HEMTs, bandwidths exceeding 150 GHz are feasible.

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