Abstracts

A 2-32 GHz Coplanar Waveguide InAIAs/lnGaAs-lnP HBT Cascode Distributed Amplifier

K.W. Kobayashi, J. Cowles, L. Tran, T. Block, A.K. Oki and D.C. Streit. "A 2-32 GHz Coplanar Waveguide InAIAs/lnGaAs-lnP HBT Cascode Distributed Amplifier." 1995 MTT-S International Microwave Symposium Digest 95.1 (1995 Vol. I [MWSYM]): 215-218.

A 2-32 GHz lnAIAs/lnGaAs-lnP HBT CPW distributed amplifier (DA) has been demonstrated which benchmarks the highest bandwidth reported for an HBT DA. The DA combines a 100 GHz fmax and 60 GHz f/sub T/ HBT technology with a cascode coplanar waveguide DA topology to achieve this record bandwidth. The cascode CPW DA demonstrates both design techniques and technology capability which can be applied to more complex circuit functions such as active baluns for mixers, active combiners/dividers, and low dc power-broadband amplification at millimeter-wave frequencies.

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