Abstracts

112-GHz, 157-GHz, and 180-GHz InP HEMT traveling-wave amplifiers

B. Agarwal, A.E. Schmitz, J.J. Brown, M. Matloubian, M.G. Case, M. Le, M. Lui and M.J.W. Rodwell. "112-GHz, 157-GHz, and 180-GHz InP HEMT traveling-wave amplifiers." 1998 Transactions on Microwave Theory and Techniques 46.12 (Dec. 1998, Part II [T-MTT] (1998 Symposium Issue)): 2553-2559.

We report traveling-wave amplifiers having 1-112 GHz bandwidth with 7 dB gain, and 1-157 GHz bandwidth with 5 dB gain. A third amplifier exhibited 5 dB gain and a 180 GHz high-frequency cutoff. The amplifiers were fabricated in a 0.1-/spl mu/m gate length InGaAs/InAlAs HEMT MIMIC technology. The use of gate-line capacitive-division, cascode gain cells and low-loss elevated coplanar waveguide lines have yielded record bandwidth broad-band amplifiers.

❑ Return to main document.