

Abstracts

Use of Surface Passivation Ledges and Local Negative Feedback to Reduce Amplitude Modulation Noise in AlGaAs/GaAs Heterojunction Bipolar Transistors

*D. Costa and A. Khatibzadeh. "Use of Surface Passivation Ledges and Local Negative Feedback to Reduce Amplitude Modulation Noise in AlGaAs/GaAs Heterojunction Bipolar Transistors." 1994 *Microwave and Guided Wave Letters* 4.2 (Feb. 1994 [MGWL]): 45-47.*

It is shown that the use of surface passivation ledges and local negative feedback with an unbypassed emitter resistance reduce the AM noise of AlGaAs/GaAs heterojunction bipolar transistors (HBT's). The simultaneous use of both techniques improves the AM noise by 9 dB at 100 Hz offset. The correspondence between reductions in baseband noise and AM noise are described.

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