Abstracts

High Performance Millimeter Wave AlInAs/GaInAs/InP HEMTs with Individually Grounded Source Finger Vias

K.Y. Hur, R.A. McTaggart, M.P. Ventresca, R. Wohlert, L.M. Aucoin and T.E. Kazior. "High Performance Millimeter Wave AlInAs/GaInAs/InP HEMTs with Individually Grounded Source Finger Vias." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 465-468.

Millimeter wave AIInAs/GaInAs/InP HEMTs with individually grounded source finger vias and end source vias have been fabricated and characterized. Although DC IV characteristics of the HEMTs with individually grounded source finger vias and end source vias were similar, RF measurements yielded higher small signal gain on the HEMT with individually grounded source finger vias. Power measurements at 44 GHz further revealed that the HEMT with individually grounded source finger vias produced higher output power, power added efficiency, and associated gain compared to the HEMT with end source vias.

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