Abstracts

A Ka-Band GaAs Power MMIC

M. Kobiki, Y. Mitsui, Y. Sasaki, M. Komaru, K. Seino and T. Takagi. "A Ka-Band GaAs Power MMIC." 1985 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 85.1 (1985 [MCS]): 31-34.

A Ka-band GaAs power MMIC with source island via-hole PHS structure and monolithic power divider/combiner circuits was developed and reliability study was performed. This source island via-hole technique successfully reduced both thermal resistance and source parasitic inductance of the MMIC. The 3200 µm MMIC gave power output at 1dB gain compression of 1.1 W, linear power gain of 4.0 dB and power added efficiency of 10.8 % at 28 GHz. No failure was observed in the temperature cycling, the DC running and the high temperature storage tests.

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