Abstracts

Power PHEMT Module Delivers 4 Watts, 38 % P.A.E. Over the 18.0 to 21.2 GHz Band

B. Kraemer, R. Basset, C. Baughman, P. Chye, D. Day and J. Wei. "Power PHEMT Module Delivers 4 Watts, 38 % P.A.E. Over the 18.0 to 21.2 GHz Band." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 801-804.

This paper describes performance of power PHEMT technology at K-band. Power PHEMT modules are shown to deliver an average output power of 4.7 watts and an average power-added efficiency (P.A.E.) of 38.5 % over the 18.0 to 21.2 GHz frequency range for a 20 module sample size. Data are shown in statistical format. Peak module performance of 5.4 watts output power and 41.4 % P.A.E. within the 18.0 to 21.2 GHz band is also presented. The results demonstrate the capability and advantages of using PHEMT technology over MESFET technology and TWTs.

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