Abstracts

A Si micromachined conformal package for a K-band low noise HEMT amplifier

S.V. Robertson, M. Matloubian, M. Case and L.P.B. Katehi. "A Si micromachined conformal package for a K-band low noise HEMT amplifier." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 517-520.

A 20 GHz low noise HEMT amplifier is fabricated and tested to demonstrate the application of integrated conformal packaging to MMIC circuit design. Si micromachining is employed to create a conformal shielding cavity for the low noise amplifier, which uses a flip chip InP HEMT. The packaged amplifier demonstrates 5 dB insertion gain at 20 GHz, with performance that closely matches simulations of an ideal line circuit. The results show that Si micromachining can be performed to integrate packaging with circuit design, and that MMICs can be fabricated on Si substrates by using discrete flip-chip devices.

❑ Return to main document.