Abstracts

A 26-GHz Miniaturized MIC Transmitter/Receiver

E. Hagihara, H. Ogawa, N. Imai and M. Akaike. "A 26-GHz Miniaturized MIC Transmitter/Receiver." 1982 Transactions on Microwave Theory and Techniques 30.3 (Mar. 1982 [T-MTT]): 235-242.

A very compact 26-GHz transmitter/receiver for high-speed digital radio subscriber systems has been developed. The transmitter/receiver makes extensive use of MIC technology in the RF sections. Transmitting power of 18 dBm and a receiving noise figure of less than 12 dB is obtained. The freqnency of the local oscillator is stabilized to within ±100 ppm by means of a high-Q dielectric resonator. The bit error rate is measured in order to evaluate the overall system, and good performance of the equipment is obtained. A field test rising this equipment is now under way. The technique described in the text can be extended to transmitter/receiver for terrestrial radio relay systems and satellite communication systems. In addition, the various MIC components developed here can be scaled to the millimeter-wave region.

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