

Abstracts

A novel scheme for reception using an active microstrip antenna

B.N. Biswas, A. Bhattacharya, P. Lahiri and D. Mondal. "A novel scheme for reception using an active microstrip antenna." 2000 Transactions on Microwave Theory and Techniques 48.10 (Oct. 2000 [T-MTT]): 1765-1768.

An unique aspect of the injection-locked active microstrip antenna incorporating a Gunn diode, i.e., the variation of the device current within the lock band, is exploited for the demodulation of an FM microwave signal. A simple experimental arrangement has been presented to demonstrate the demodulation performance of the receiver even in a multichannel environment. Using two such separate antennas as transmitter and receiver, a two-way short-range communication system has been demonstrated that may be suited for certain commercial and military applications.

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