

Abstracts

A Subharmonically Pumped Fin-Line Mixer for Satellite TV Receiver Applications

G. Begemann. "A Subharmonically Pumped Fin-Line Mixer for Satellite TV Receiver Applications." 1981 MTT-S International Microwave Symposium Digest 81.1 (1981 [MWSYM]): 454-456.

A subharmonically pumped fin-line mixer working at the satellite TV frequency band around 12 GHz has been realized with a simple filter and diplexer configuration. All of the mixing products below and including double the LO frequency are suppressed by an RF input high-pass filter, which simultaneously rejects the image frequency band. With non-selected commercially available diodes a conversion loss of 5.5 to 6.2 dB has been measured. The calculated DSB noise figure is between 3.9 dB and 4.6 dB.

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