

Abstracts

A 40 GHz Integrated Quasi Optical Slot HFET Mixer (1994 Vol. III [MWSYM])

H. Zirath, C.-Y. Chi, N. Rorsman and G.M. Rebeiz. "A 40 GHz Integrated Quasi Optical Slot HFET Mixer (1994 Vol. III [MWSYM])." 1994 MTT-S International Microwave Symposium Digest 94.3 (1994 Vol. III [MWSYM]): 1451-1453.

We present for the first time a quasi optical mixer realized as a resistive HFET mixer with an integrated slot antenna. The mixer circuit conversion loss, defined as the measured IF-power in the 50 ohm load divided by the RF-power available at the slot-antenna terminals, is approximately 7 dB at an LO-power of 10.5 dBm when the mixer is fundamentally pumped, and 16 dB for subharmonically pumping at 10 dBm LO-power.

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