

A comparison of W-band monolithic resistive mixer architectures

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Three W-band resistive mixer architectures have been designed and their performance compared and contrasted. The mixers were fabricated using 0.1 μm gate length InP HEMT technology for improved conversion loss performance compared to GaAs pHEMT. In particular, a state of art 94 GHz sub-harmonic resistive mixer is reported with 9.5 dB conversion loss when operated with a LO drive level of 2 dBm.

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