



MILLIMETER WAVE MIXERS

FEATURES:

- Small size and weight
- Rugged
- Wide temperature tolerance
- State-of-the-art performance
- High reliability

DESCRIPTIONS:

18-26.5 GHz Balanced mixer

With a typical conversion loss of 7.5 dB (8.5 dB maximum) the KDMIX-1 single-balanced mixer operates over 18 to 26.5 GHz. R.F. and L.O. VSWR's are less than 2:1 over the entire range. I.F. port VSWR is less than 1.5:1. For an L.O. power of 1 mW and a 3 mA bias, the double sideband noise figure is less than 8 dB. L.O. to R.F. isolation is typically 25 dB. One dB compression points are typically at 0 dBm.

26.5 to 40 GHz Balanced mixer

Operating over 26.5 to 40 GHz, the RBM-1 balanced mixer has a maximum conversion loss of 9.5 dB, with a local oscillator drive (P_{lo}) of 3 dBm. At a P_{lo} of 6 dBm, the mixer has a maximum loss of 8.2 dB. The unit's noise figure is 9.1 dB, with a P_{lo} of 6 dBm. R.F. port VSWR is less than 1.9:1, L.O. port VSWR less than 3 and I.F. port VSWR less than 1.33:1, all with a P_{lo} of +3 dBm over 0.1 to 2 GHz. L.O. to R.F. isolation is 17 dB minimum, 25 dB typical (also with a P_{lo} of 3 dBm). The 2 x 2 spurious suppression is greater than 39 dB, also with a P_{lo} of 3 dBm and a P_{rf} of -20 dBm. L.O. AM suppression is better than 30 dB. The 1 dB compression point occurs at -5 dBm.

These mixers utilize the latest MIC (Microwave Integrated Circuit) techniques, including thin film gold conductors and integrated tantalum nitride resistors on alumina or quartz substrates, nitride passivated Schottky beam lead diodes and silicon MIS capacitors to optimize performance and reliability. They can be easily integrated with other microwave components such as filters, diode switches, oscillators and amplifiers to form a single integrated subsystem.

PLAMIC MEANS MIC

For further information please contact:

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