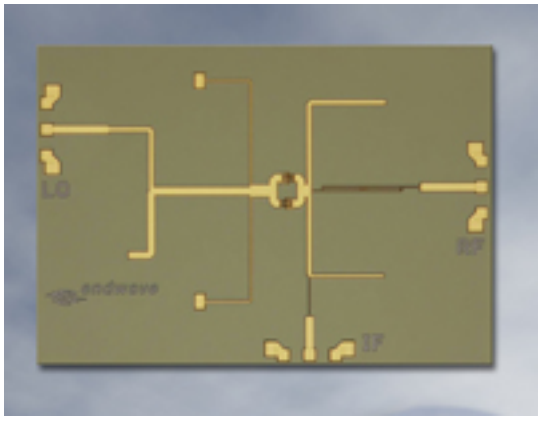
Sub-harmonically Pumped Mixer MMIC Performs Through 97 GHz



Endwave Corporation has announced the release of a new sub-harmonically pumped mixer (2 x LO) MMIC. Designed and manufactured in cooperation with WIN Semiconductor Corporationâ€™s 0.1 Âµm PHEMT process development, Model EWM9002ZZ offers a broadband frequency performance of 67 to 97 GHz with LO to RF isolation of over 30 dB and a conversion loss of 12 dB. The device, which can be used both as an upconverter or downconverter, also delivers RF return loss at better than 10 dB, LO drive level of +15 dBm, and is highly repeatable.

Subharmonic mixers are often used in communications system in order to eliminate the unwanted effects of LO self-mixing, which occurs in many fundamental frequency mixers. EWM9002ZZ has the advantage of high RF to LO isolation and LO noise cancellation across a very broad frequency band.

The device utilizes anti-parallel connected PHEMT diode pairs to mix the second harmonic of a fixed-frequency LO with the input signal, and is well suited for E-band point to point microwave radio applications, W-band defense electronics and commercial communications systems. Endwave also offers key products for the LO chains, such as our EWX4201 multiplier and EWP4102ZZ driver amplifier.

Each die is visually inspected to Mil-STD-2010. The mechanical measurements of the die are 1.815 x 1.295 x 0.05 mm. Bare die prices at 1000 pieces are $45.00. Delivery is available directly from Endwave. For more details visit www.endwave.com

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