

General Description

MWX201 is an active tripler multiplier designed and manufactured by GaAs pHEMT process. The tripler is driven by an input signal of +16dBm, and can realize the output signal of +17dBm power in the operating frequency band of 50-70GHz. The excellent performance of this frequency multiplier makes it widely used in point-to-point communication, indoor wireless communication and testing instruments and other application scenarios.

Features

Output Power: +17 dBm

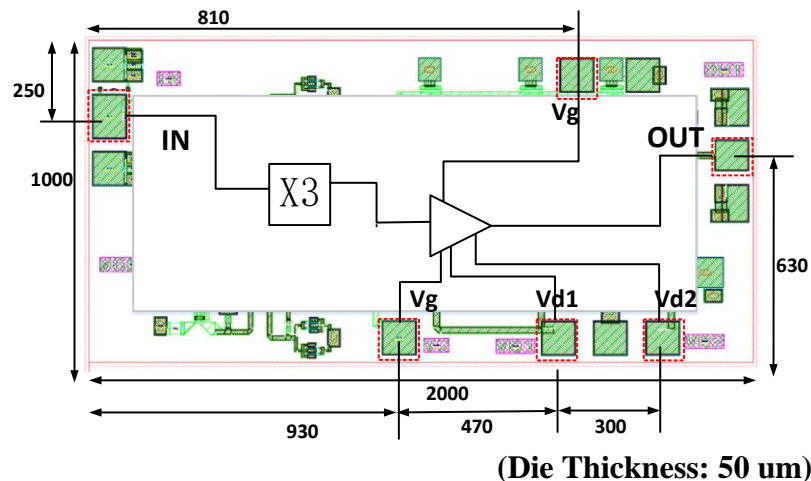
Input Power: + 16 dBm

1x, 2x Isolation: > 40 dBc

Supply Current: +4 V@106 mA

Chip Size: 2 x 1 x 0.05 mm

Functional Diagram(Typical bond: 100x100, unit: um)

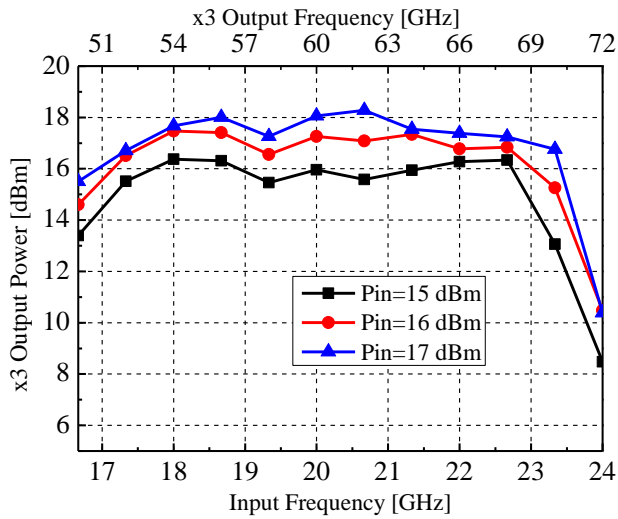


Electrical Specification $T_A = +25^\circ\text{C}$, $V_{d1} = V_{d2} = +4\text{V}$, $V_g = -0.4\text{V}$, $P_{in} = 16\text{dBm}$

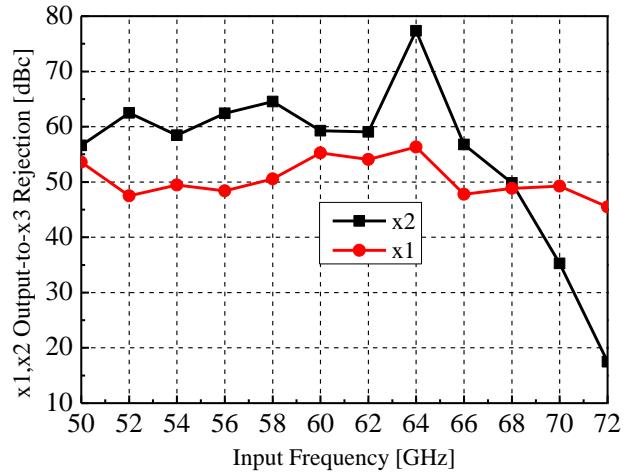
Parameter	Min	Typ	Max	Units
Input Bandwidth	16.7		23.3	GHz
Output Bandwidth	50		70	GHz
Pout	15	17		dBm
1x, 2x Isolation	40			dBc
Output Return Loss	6	10		dB
Supply Current (@Vdd= +5V)		106		mA

Test Results

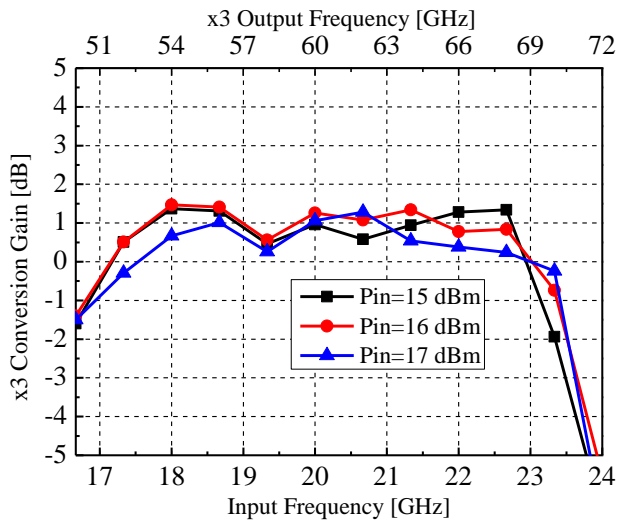
Output Power



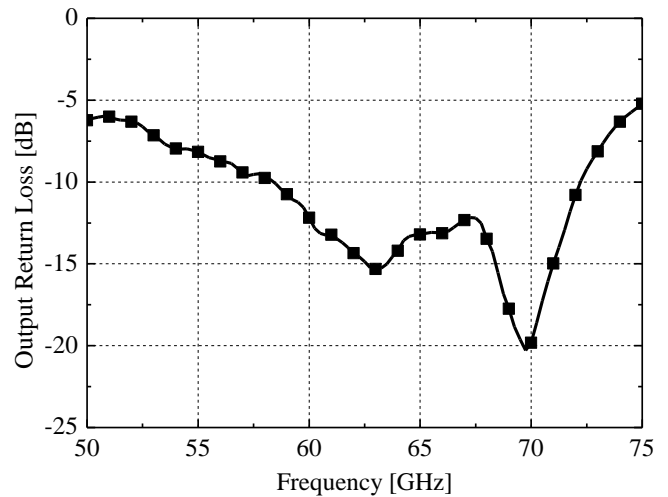
Subharmonic Suppression



Conversion Gain



Output Return Loss



Assembly Diagram

