General Description

MWX205 is an active tripler designed and manufactured by GaAs pHEMT process. Driven by the +16dBm input signal, the tripler can realize the +14dBm output signal in the operating frequency band of 87-97GHz. The excellent performance of this frequency multiplier makes it widely used in point-to-point communication, imaging and measurement instrumentation applications.

Features

Output Power：+14 dBm

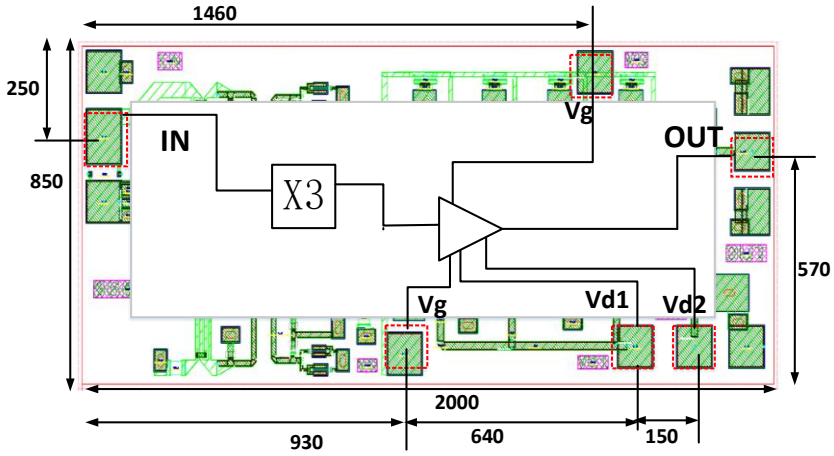
Input Power：+ 16 dBm

1x，2x Isolation：> 50 dBc

Supply Current：+4 V@115 mA

Chip Size：2 x 0.85 x 0.05 mm

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



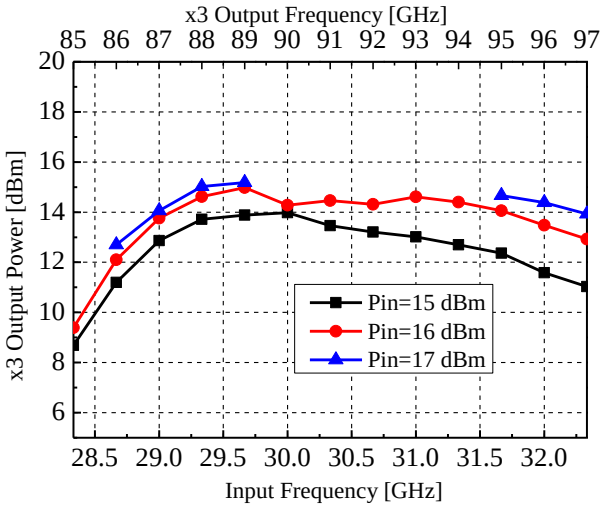
(Die Thickness: 50 um)

Electrical Specifications，T_A = +25℃，Vd1 = Vd2 = +4V，Vg = −0.4V，Pin = 16dBm

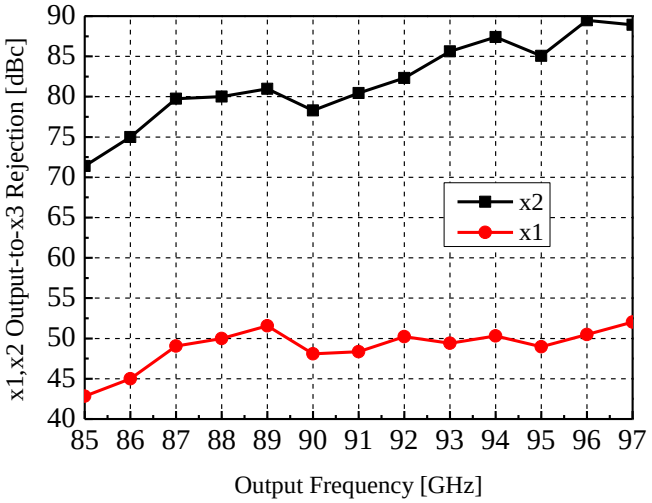
Parameter	Min	Typ	Max	Units
Input Bandwidth	29		32.3	GHz
Output Bandwidth	87		97	GHz
Output Power	13	14	15	dBm
1x，2x Isolation	50			dBc
Output Return Loss	10	15		dB
Supply Current （@Vd= + 4V）		115		mA

Test Results

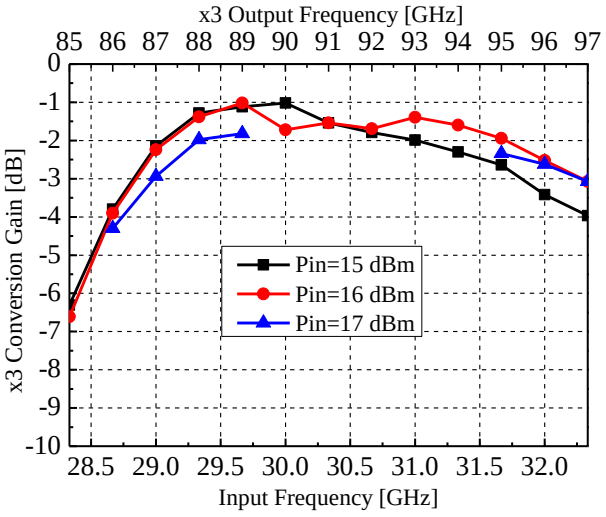
Output Power



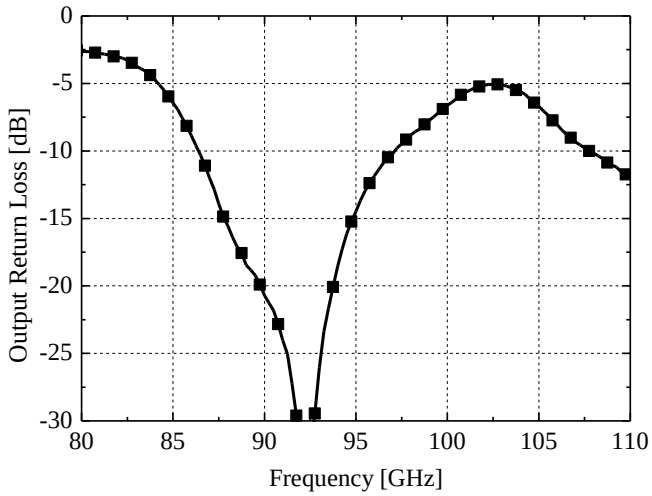
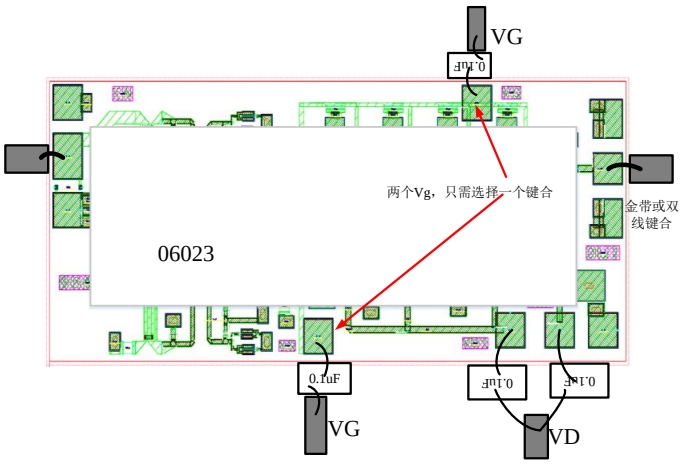
Subharmonic Suppression



Conversion Gain



Output Return Loss



Assembly Diagram