Performance Characteristics:

- RF/LO frequency band: 18GHz-32GHz
- IF band: DC-8GHz
- Frequency conversion loss: 8dB
- RF-IF isolation: 17dB
- LO-IF isolation: 48dB
- LO-RF isolation degree: 45dB
- Local vibration power: 13dBm
- Chip size: 1.192mm×0.822mm×0.1mm

Product profile:

CW-MX292 is a GaAs MMIC passive double balanced mixer with RF/local frequency covering 18-32GHz, IF fre quency covering DC-8GHz, conversion loss less than 8.5dB, Rf to IF isolation greater than 13dB, local vibration to if isolation greater than 40dB, local vibration to RF isolation greater than 43dB, typical local input power is 13dB m.

Electrical parameters: (TA=25℃,IF=0.1GHz,LO=13dBm)

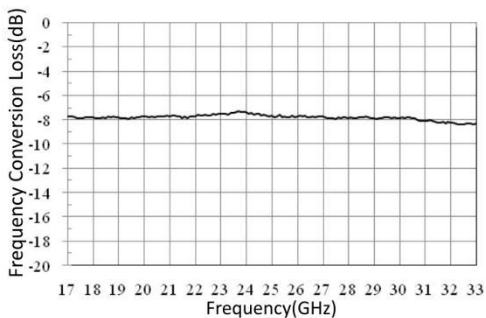
Indicators	Minimum	Typical value	Maximum value	Units
Radio frequency	18-32			GHz
Local frequency	18-32			GHz
If frequency	DC-8			GHz
Frequency conversion loss	7.5	8	8.5	dB
RF-IF isolation	13	17	24	dB
LO-IF isolation	40	48	55	dB
LO-RF isolation	43	45	48	dB
P1dB(input)	11	12	13	dBm

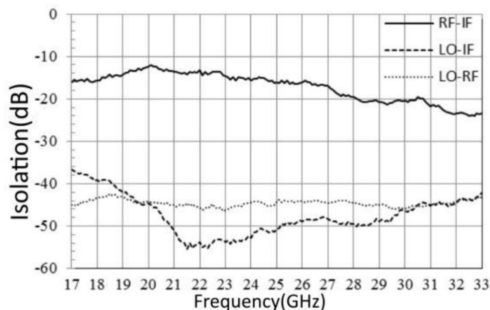
Use limit parameters: (Exceeding any of the above maximum limits is likely to cause permanent damage.)

Rf/IF power	24dBm
Local vibration power	24dBm
Storage temperature	-65℃-150℃
Service temperature	-55℃-125℃

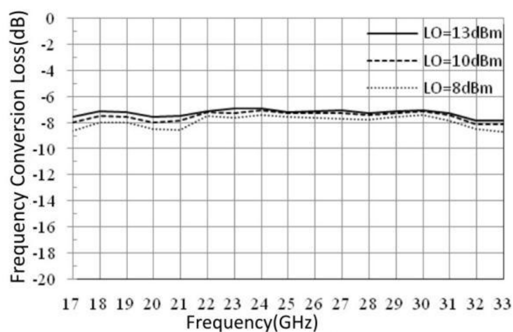
Typical curve:

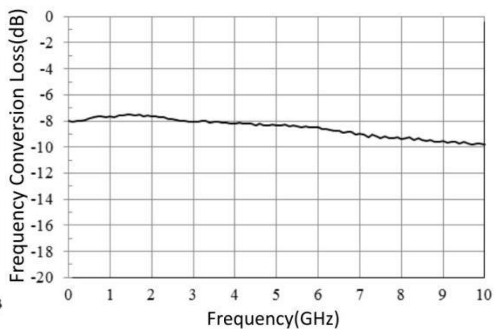
Frequency conversion loss curve @LO=13dBm, IF frequency 0.1GHz   isolation@LO=13dBm, if frequency 0.1GHz



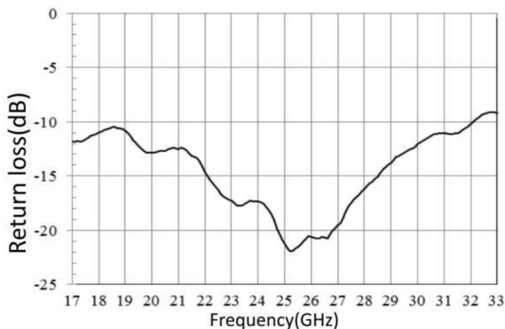


Frequency conversion loss @IF frequency 0.1GHz   IF bandwidth @LO=26GHz,LO=13dBm

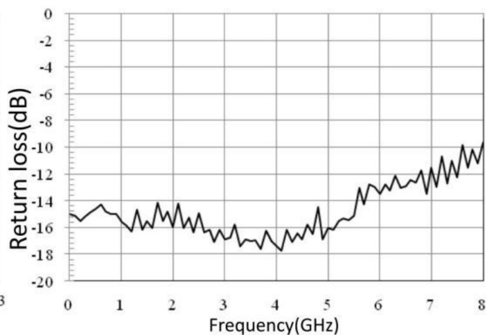




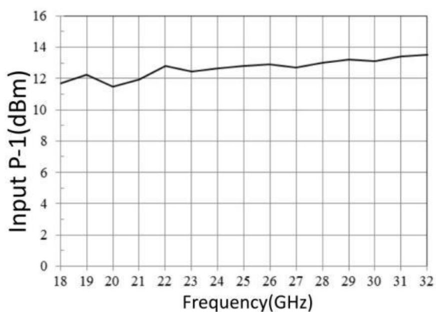
Rf return loss



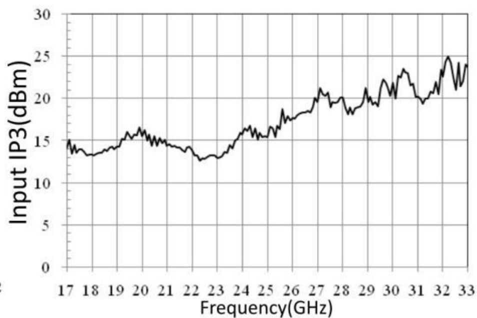
IF return loss



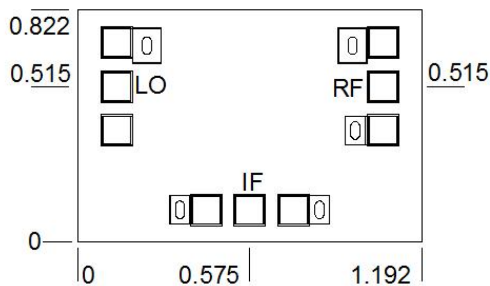
Enter P-1@LO=13dBm



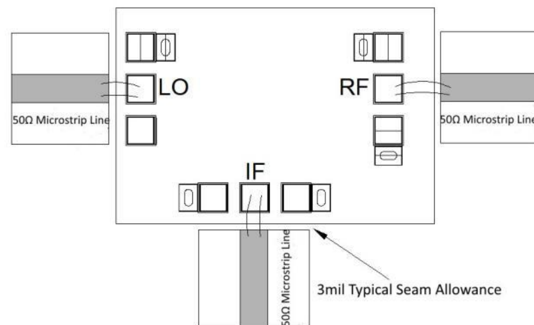
Enter IP3@ LO=13dBm



Dimensional drawing： (unit mm)



Suggested assembly drawing:



Instructions:

Storage: The chip must be placed in a container with electrostatic protection and stored in a nitrogen environment.

Cleaning treatment: The bare chip must be operated and used in a purified environment. It is forbidden to use liquid cleaning agent to clean the chip.

Electrostatic protection: Strictly comply with the ESD protection requirements to avoid electrostatic damage to the components.

General operation: Use vacuum chuck or precision pointed tweezers to remove the chip.Avoid touching the surface of the chip with tools or fingers during handling.

Mounting operation: The chip can be installed using AuSn solder eutectic welding or conductive adhesive bonding process.The mounting surface must be clean and flat.

Bonding operation: Input and output with 2 (recommended diameter of 25um gold wire) bonding wire, bonding wire length less than 250um is optimal.It is recommended to use the smallest possible ultrasonic energy.Bonding begins at the pressure point on the chip and ends at the package (or substrate).