Performance Characteristics:

- Frequency range: 6GHz-12GHz
- Conversion gain: -13.5dB
- F0 isolation: 35dBc
- 3F0 Isolation: 35dBc
- 4F0 Isolation: 28dBc
- Input signal power: 15dBm
- Chip size: 1.4mm×0.69mm×0.1mm

Product Description:

CW-MP205 is a GaAs MMIC passive frequency doubler, this type of frequency doubler chip in the input powe r of 15dBm, conversion gain typical value of -14dB, the fundamental wave suppression to 35dBc, the suppression of the third harmonic to 35dBc, the suppression of the fourth harmonic to 30dBc, the typical input power of 15 dBm.

Electrical parameters: (TA=25℃,Pin=15dBm)

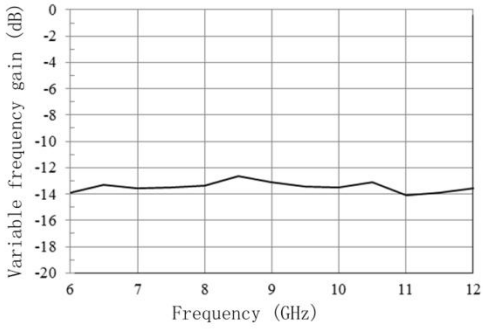
Indicators	Minimum	Typical value	Maximum value	Units
Input frequency	6-12			GHz
Output frequency	12-24			GHz
Conversion gain	-13	-13.5	-14	dB
Fundamental wave suppression	35	-	-	dBc
Third harmonic suppression	35	-	-	dBc
Fourth harmonic suppression	28	-	-	dBc

Use limit parameters: (Exceeding any of the above maximum limits risks permanent damage.)

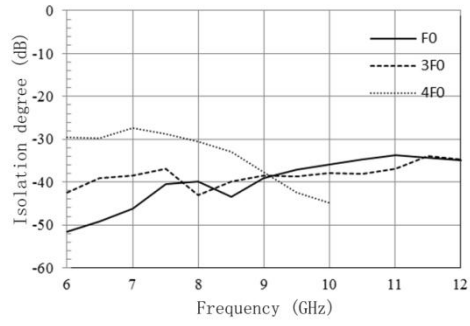
Maximum input power	27 dBm
Storage temperature	-65℃-150℃
Service temperature	-55℃-125℃

Typical curve:

Conversion gain curve @Pin=15dBm

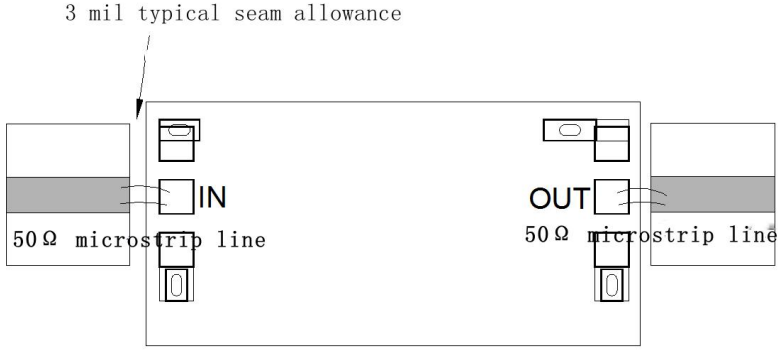


Isolation @Pin=15dBm



Size diagram: (unit mm)

Suggested assembly drawing:



Instructions:

Note: I/O has straight capacitance

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 pick up 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).