Performance characteristics:

- Frequency band:DC~20GHz
- Noise factor:2dB
- Gain：12dB
- Output P1dB:15dBm
- Output IP3:30dBm
- Power supply:+8V@70mA
- Chip size:3.12mm×1.38mm×0.1mm

Product Description:

The CW-LN460-G is a GaAs MMIC ultra wideband low-noise amplifier chip with a frequency range covering DC~20GHz and a typical noise figure of 2.0dB throughout the band. the CW-LN460-G is powered by +8V.

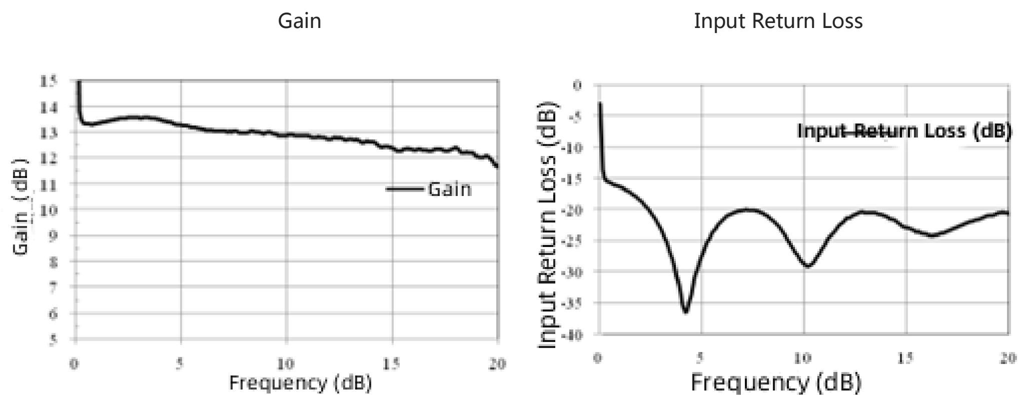
Electrical parameters:(T_A=25℃，VD=+8V，VG=-0.74V)

Indicators	Minimum value	Typical values	Maximum value	Unit
Frequency range	DC~25			GHz
Noise factor	-	2	-	dB
Gain	-	12	-	dB
Input Return Loss	-	15	-	dB
Output Return Loss	-	15	-	Db
Output P-1dB	-	15	-	dBm

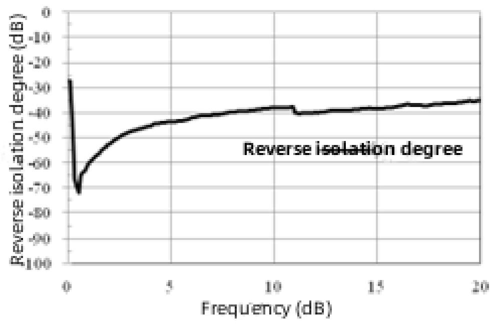
Usage limitation parameters：(Exceeding any of the above maximum limits may result in permanent damage.)

Input power	+23dBm
Control voltage	+9V
Storage temperature	-65℃~150℃
Operating temperature	-55℃~125℃

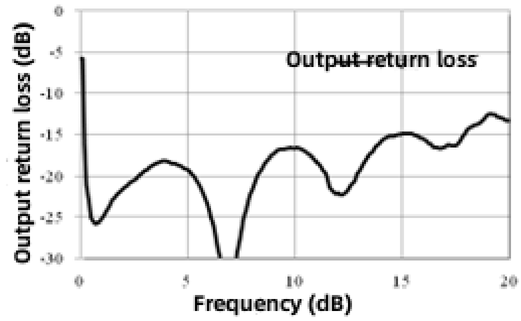
Typical curves:



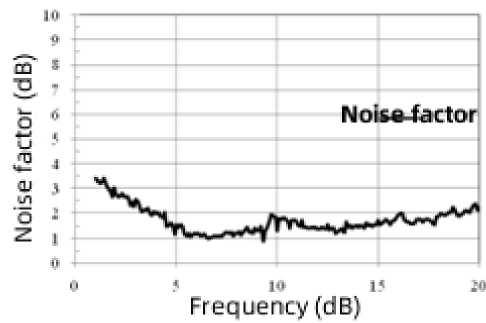
Reverse isolation degree



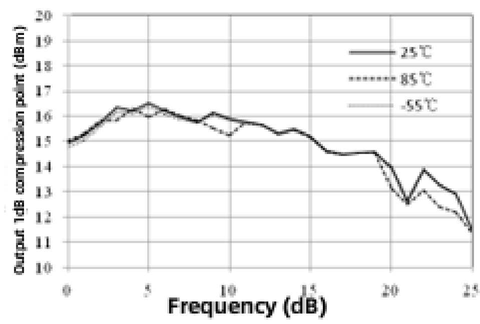
Output Return Loss



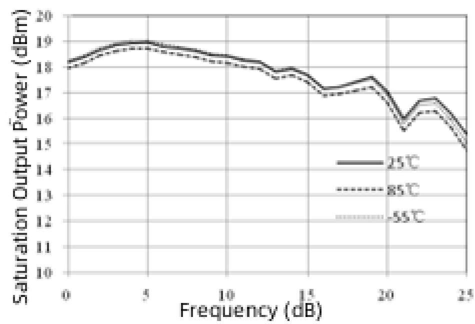
Noise factor Vs temperature



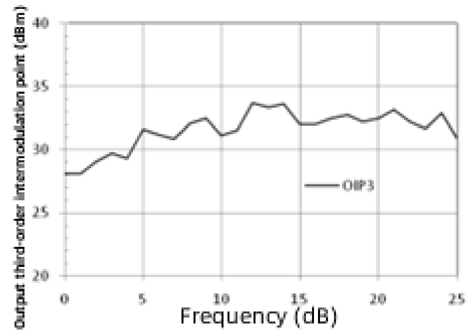
Output 1dB compression point Vs temperature



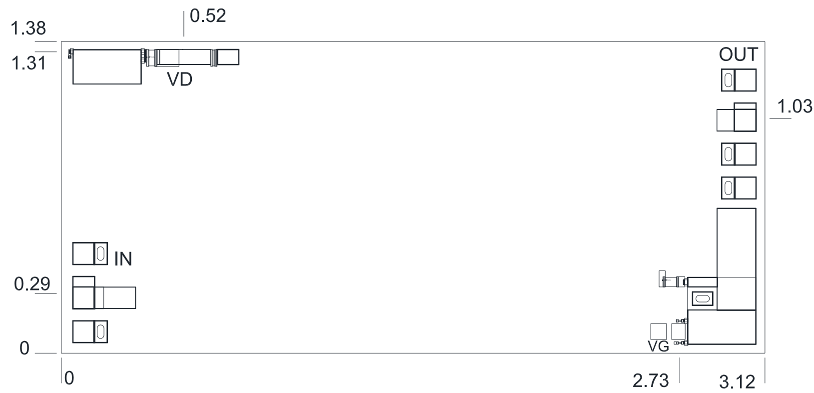
Output saturation power Vs Temperature



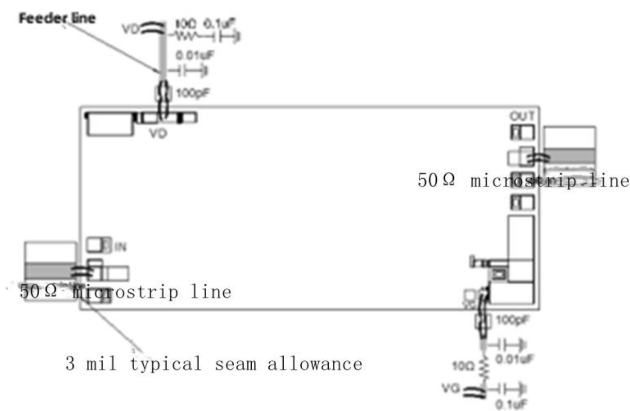
Output third-order intermodulation point (25°C)



Dimensional drawing: (unit mm)



Suggested assembly drawing:



Instructions for use:

Caution: Input and output have isolation capacitors
Storage: The chip must be placed in a container with electrostatic protection and stored in a nitrogen atmosphere.

Cleaning treatment: Bare chips must be operated and used in a purified environment, and it is prohibited to useliquid cleaners to clean the chips.

Electrostatic protection: Please strictly comply with ESD protection requirements to avoid electrostatic damage tothe device.

Routine operation: Please use vacuum chuck or precision pointed tweezers to pick up the chips. Avoid touchingthe chip surface with tools or fingers during the operation.

Mounting operation: Chip mounting can be done using AuSn solder eutectic welding or conductive adhesivebonding process. The mounting surface must be clean and flat.

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