

Performance Features:

- Frequency band: 1~8GHz
- Noise factor: 1.4dB
- Gain: 23dB
- Input/output return loss: >8.5dB/>8dB
- Output P1dB: 16dBm
- Single power supply: +5V@73mA
- Chip size: 2.4mm x 1.2mm x 0.1mm

Product Description:

CW-LN0108 is a GaAs MMIC broadband low noise amplifier chip, its frequency range covers 1~8GHz, the entire band noise factor typical value of 1.4dB. The CW-LN0108 is powered by +5V.

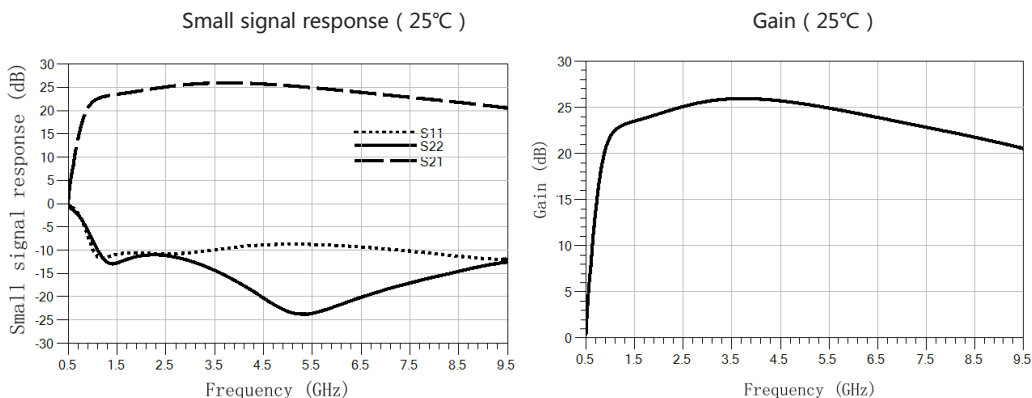
Electrical parameters: ($T_A=25^{\circ}C$, $V_d=+5V$)

Indicators	Minimum	Typical value	Maximum value	Units
Frequency range	1~8			GHz
Noise factor	1.1	1.4	2.1	dB
Gain	22	23	26	dB
Input return loss	8.5	-	-	dB
Output return loss	8	-	-	dB

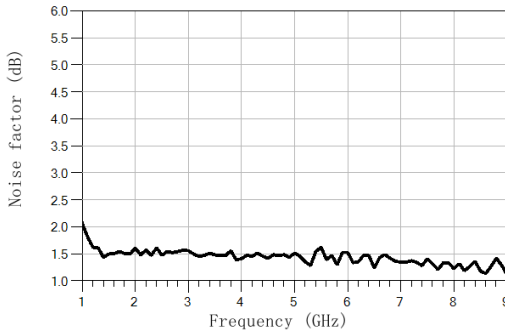
Electrical parameters : (Exceeding any of the above maximum limits risks permanent damage.)

Input power	+18dBm
Control voltage	+5V
Storage temperature	-65°C~+150°C
Service temperature	-55°C~+125°C

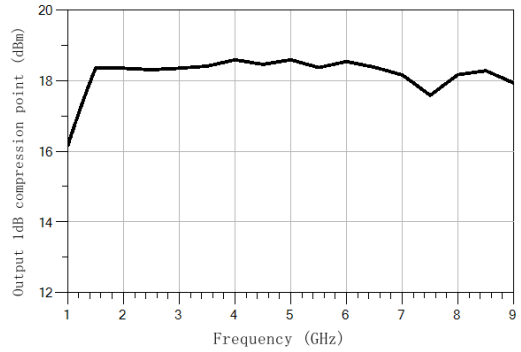
Typical curve:



Noise factor (25°C)



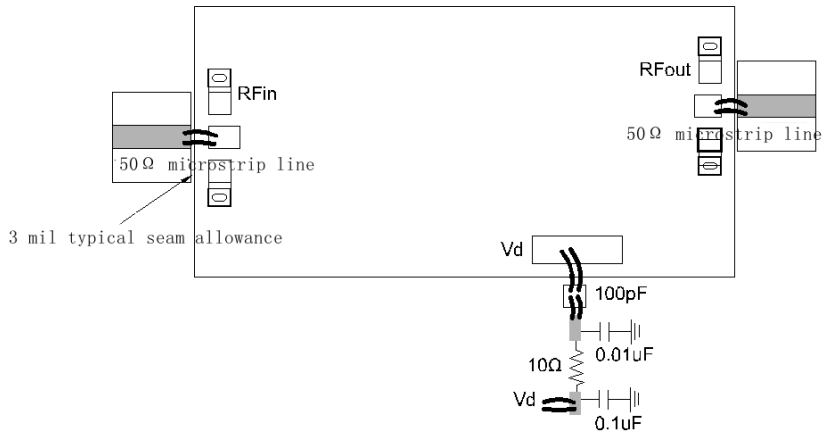
Output 1dB compression point (25°C)



Size drawing: (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).