

Performance Characteristics:

- Frequency band: 8-12GHz
- Noise factor: 0.8dB
- Gain: 25dB
- Output P-1dB: 14dBm
- Power supply: +5V@32mA
- Chip size: 1.7mm x 0.82mm x 0.1mm

Product Description:

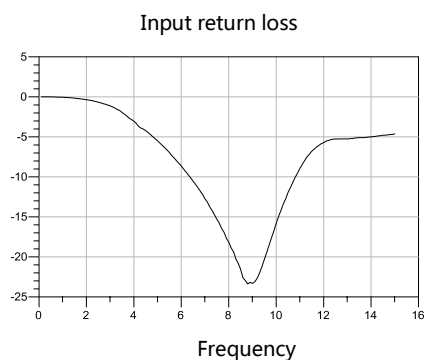
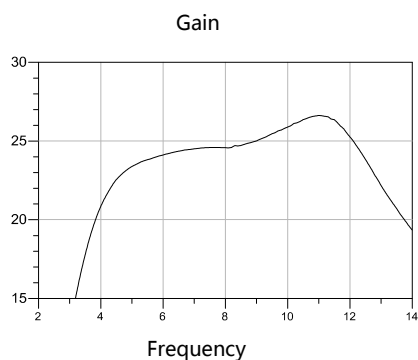
CW-LN0812 is a GaAs MMIC low noise amplifier with a frequency range covering 8-12 GHz and an in-b and noise factor of 0.8dB. The chip is powered by a +5V single power supply.

Electrical parameters:(TA=25°C,VD=5V)

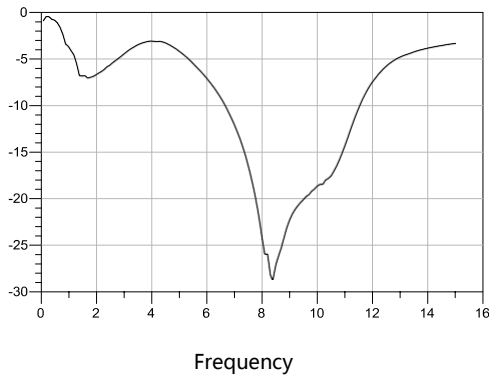
Index	Minimum	Typical value	Maximum value	Units
Frequency range	8-12			GHz
Noise factor	-	0.8	-	dB
Gain	-	25	-	dB
Input return loss	-	20	-	dB
Output return loss	-	18	-	dB
Output P1dB	-	14	-	dBm
Working current	-	33	-	mA

Use limit parameters :

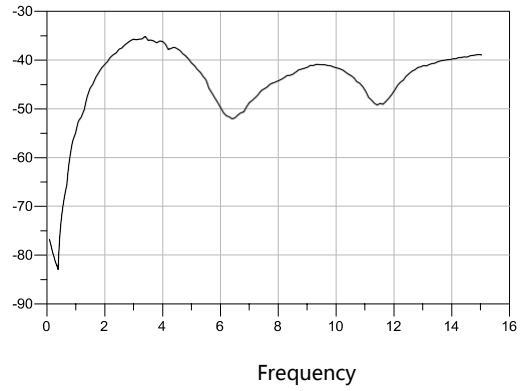
Input power	15dBm
Voltage	+7V
Storage temperature	-65°C-150°C
Service temperature	-55°C-85°C

Typical curve :

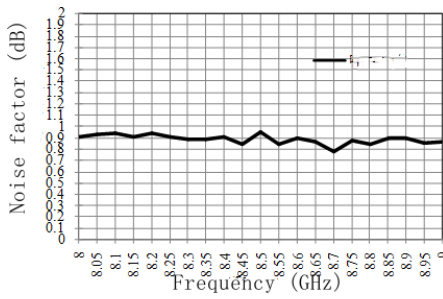
Output return loss



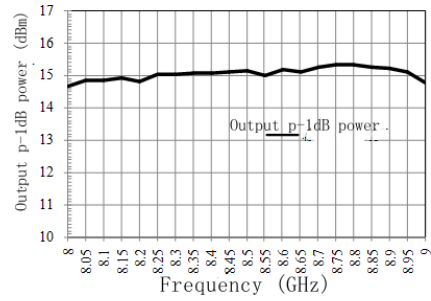
reverse isolation



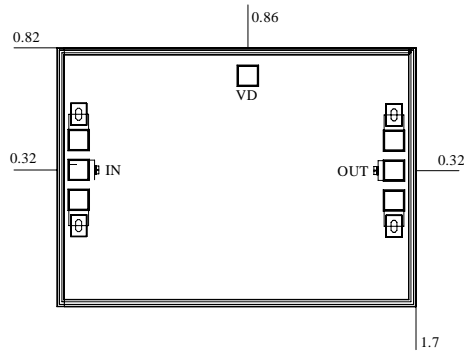
Noise factor

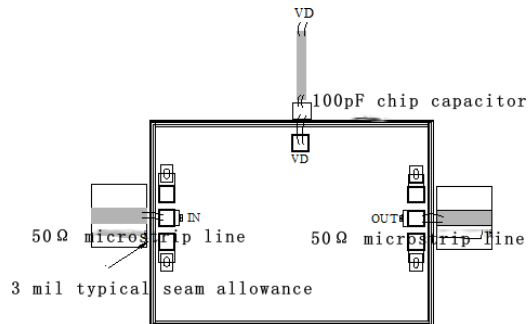


1dB compression point output power



Size diagram: (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 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).