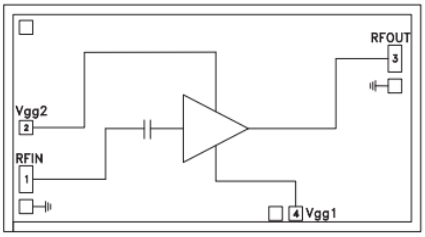
Functional Diagram



Performance characteristics:

- Frequency band: 2GHz~20GHz
- Gain：16dB
- Input and output standing wave: 1.5
- Output P-1dB:26dBm
- Power supply bias: +8V/-0.8V
- Chip size:3.1mm×1.63mm×0.1mm

Product Description:

CW464 is a GaAs MMIC broadband power amplifier chip with operating frequency covering 2GHz~20GHz, gain typical value 16dB, 1dB compression power 26dBm, excellent port standing wave characteristics in the whole operating frequency range, ideal for application in microwave hybrid ICs and multi-chip modules as well as low-power systems.

Electrical parameters:(T_A=25℃，+8V/-0.8V)

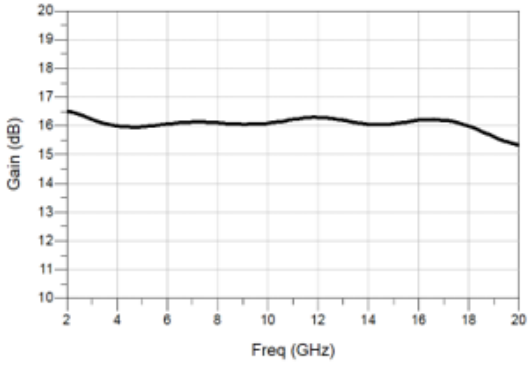
Indicators	Minimum value	Typical values	Maximum value	Unit
Frequency range		2~20		GHz
Gain	15.5	16	16.5	dB
P-1dB	-	26	-	dBm
Input standing wave	-	1.5	-	
Output standing wave	-	1.5	-	
Static current	-	-	350	mA

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

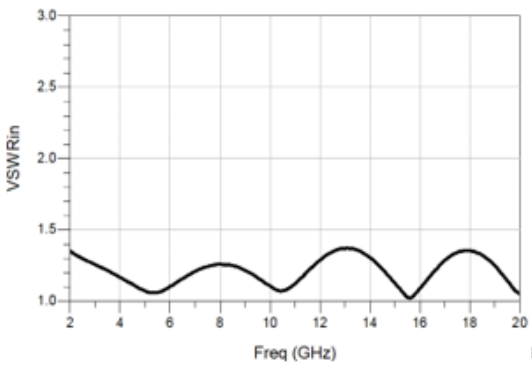
Maximum power	25dBm
Storage temperature	-65℃~+150℃
Operating temperature	-55℃~+85℃

Typical curves:

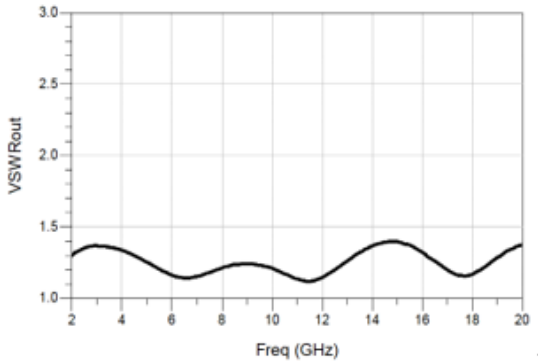
Gain



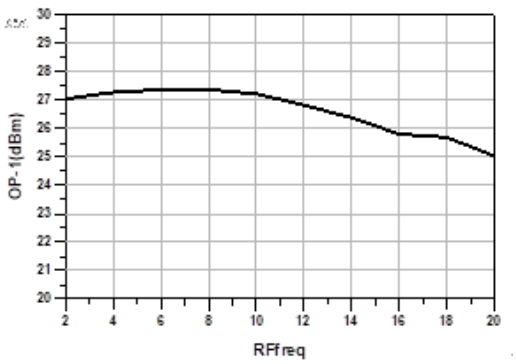
Input standing wave



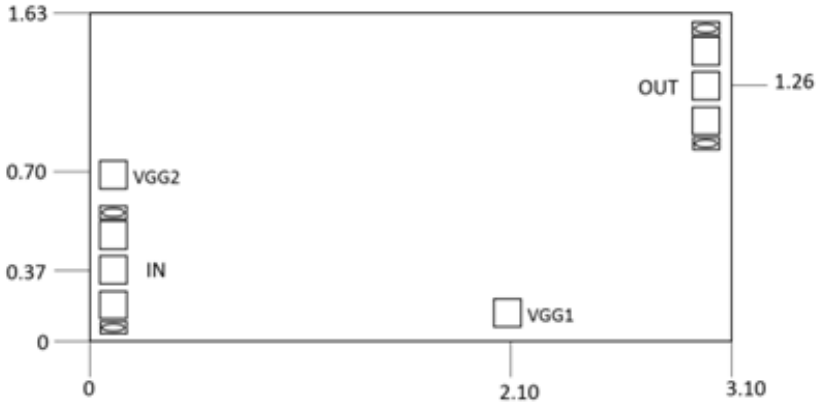
Output standing wave



Output P-1dB



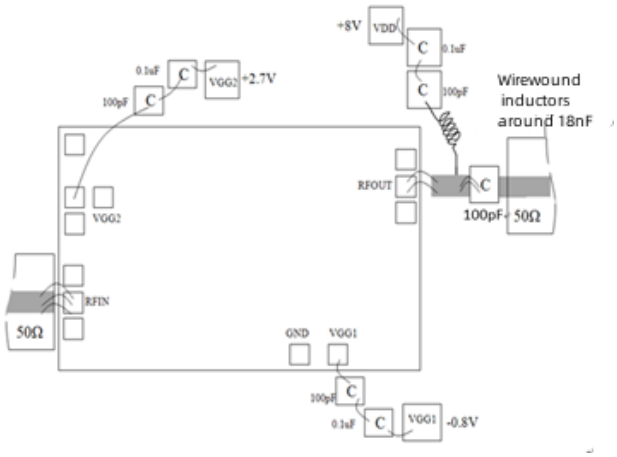
Physical size drawing: (unit mm)



Keying pressure point definition :

Pad Symbols	Function Description
IN	RF signal input
VGG2	2.7V power supply
OUT&VDD	RF signal output and +8V power supply
VGG1	-0.8V power supply

Suggested assembly drawing:



Instructions for use:

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).