

Performance Features:

- Attenuation: 5dB
- Flatness of attenuation: $\pm 0.15\text{dB}$
- I/O return loss: 20 dB
- Maximum input power: +27 dBm
- Chip size: 0.6mm \times 0.51mm \times 0.1mm

Product Description:

CW-AT105S_1_2 is a GaAs MMIC fixed attenuator with excellent performance. The chip covers the DC-40GHz band and range, attenuation range is

optional, attenuation fluctuation is less than 0.4dB, input-output voltage standing wave ratio is less than 1.3.

Electrical parameters: ($T_A=25^\circ\text{C}$)

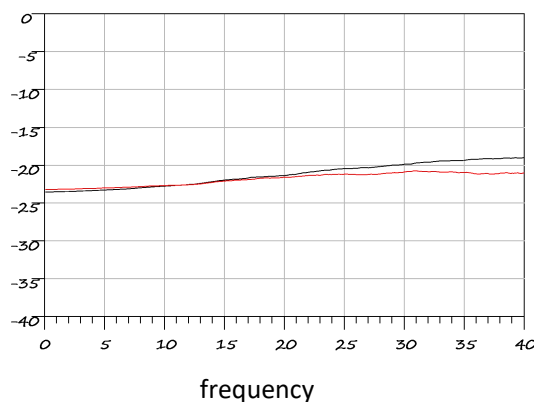
Indicators	Minimum	Typical value	Maximum value	Units
Frequency range	DC-40			GHz
Attenuation fluctuation	-	-	0.4	dB
Enter the standing wave ratio	-	1.2	1.3	-
Output standing wave ratio	-	1.2	1.3	-

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

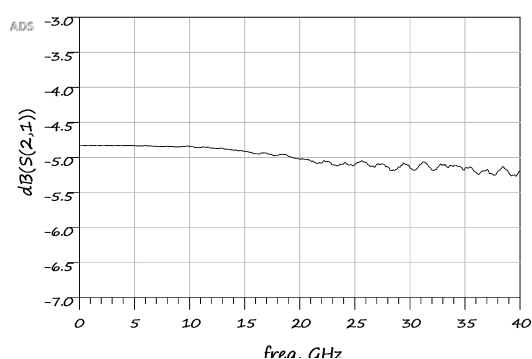
Maximum input power	27 dBm
Storage temperature	-65 $^\circ\text{C}$ -175 $^\circ\text{C}$
Service temperature	-55 $^\circ\text{C}$ -125 $^\circ\text{C}$

Typical curve: ($T_A=+25^\circ\text{C}$)

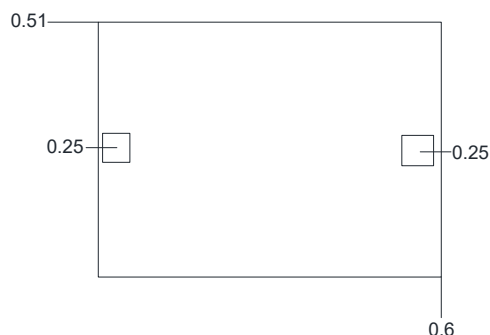
I/O return loss



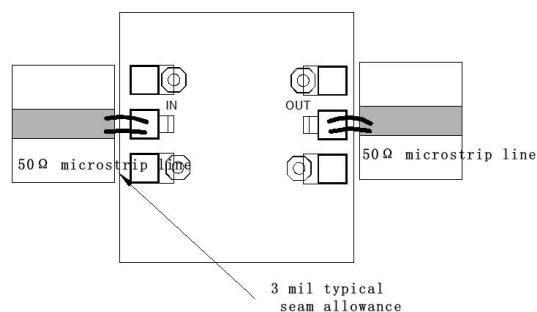
Insertion loss



Size drawing: (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 25 μm gold wire) bonding wire, bonding wire length less than 250 μm 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).