

**Performance Characteristics:**

- Frequency band: 12~18GHz
- Insertion loss: 0.5dB
- Fluctuation of insertion loss:  $\pm 0.2$ dB
- Isolation: 20dB
- Input/output voltage standing wave ratio: 1.3/1.3
- Chip size: 1.5mm $\times$ 1.5mm $\times$ 0.075mm

**Product Description:**

CW-PD1218V is a gallium arsenide monolithic two-power splitter chip. The chip has the characteristics of small plug loss, high isolation, small size, light weight, easy integration, and so on. It is widely used in power distribution and synthesis. The chip adopts on-chip through hole metallization process to ensure good grounding. The back side is metallized, suitable for eutectic sintering and conductive adhesive bonding processes.

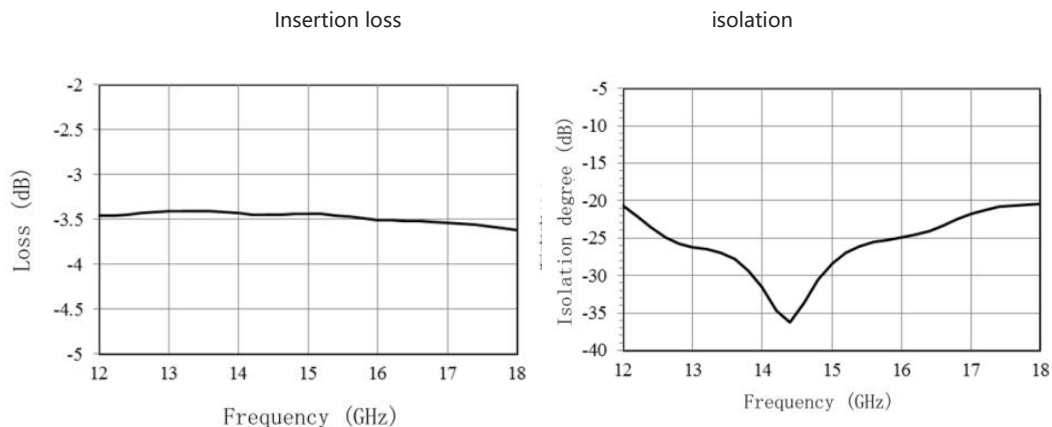
**Electrical parameters:** ( $T_A=25^\circ\text{C}$ )

Indicators	Minimum	Typical value	Maximum value	Units
Frequency range	12~18			GHz
Insertion loss	0.3	0.5	0.7	dB
Fluctuations in plug loss	-	-	$\pm 0.2$	dB
isolation	-	20	-	dB
Enter the standing wave ratio	-	1.3	-	-
Output standing wave ratio	-	1.3	-	-

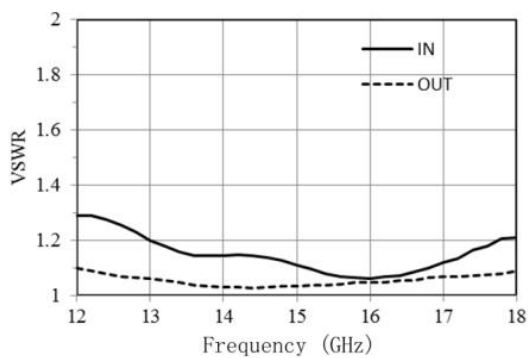
**Use limit parameters:** (Exceeding any of the above maximum limits risks permanent damage.)

Input power	+30dBm
Storage temperature	-65 $^\circ\text{C}$ ~150 $^\circ\text{C}$
Service temperature	-55 $^\circ\text{C}$ ~125 $^\circ\text{C}$

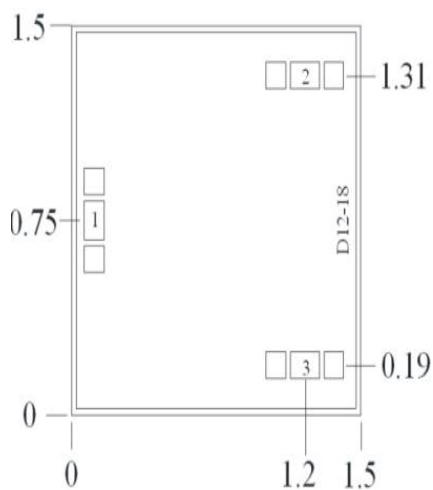
**Typical curve:**



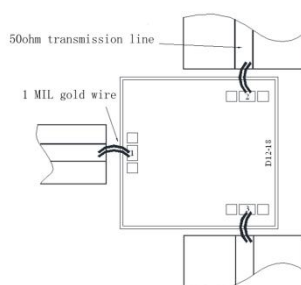
**Standing wave ratio**



**Dimensional 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 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).