

Performance Characteristics:

- Frequency band: 10-18GHz
- Insertion loss: 0.6dB
- Fluctuation of insertion loss: ± 0.3 dB
- Isolation: 22dB
- Input return loss: 18dB
- Output return loss: 22dB
- Chip size: 1.18mm \times 1.0mm \times 0.1mm

Product Description:

CW-PD31018 is a GaAs MMIC 0° three-way power splitter chip. The power splitter chip has the characteristics of small plug loss, high isolation, small size, easy integration and so on. Its frequency range covers 10~18GHz.

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

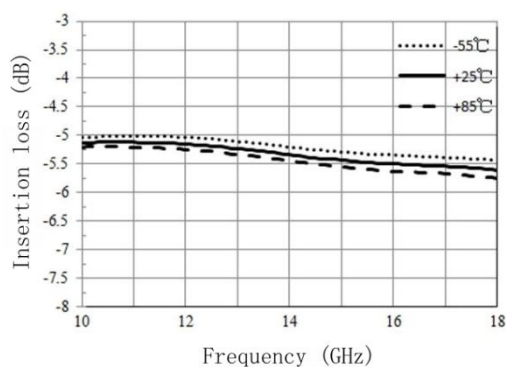
Indicators	Minimum	Typical value	Maximum value	Units
Frequency range	10~18			GHz
Insertion loss	-	0.6	0.8	dB
Fluctuations in plug loss	-	± 0.3	-	dB
isolation	22	-	-	dB
Input return loss	18	-	-	dB
Output return loss	22	-	-	dB

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

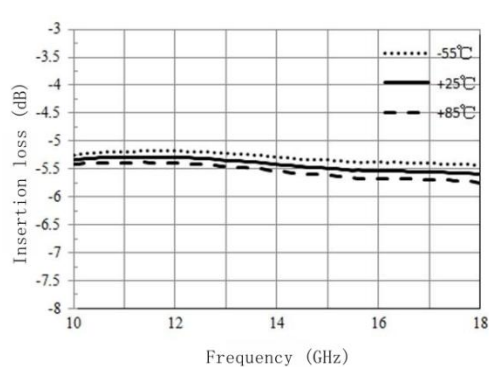
Input power	+30dBm
Storage temperature	-65°C~+150°C
Service temperature	-55°C~+85°C

Typical curve:

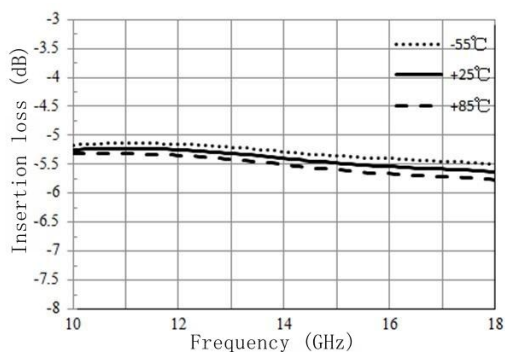
2 port insertion loss



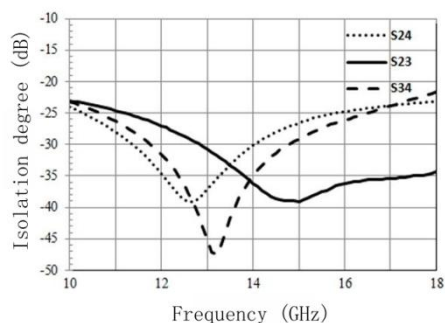
3 port insertion loss



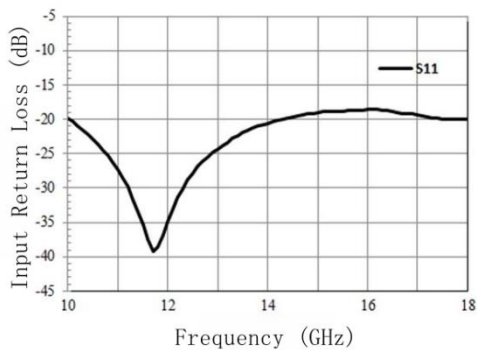
4-Port insertion loss



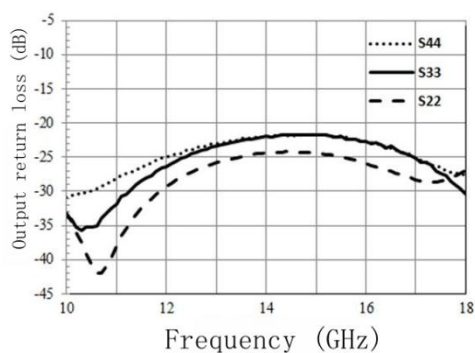
isolation



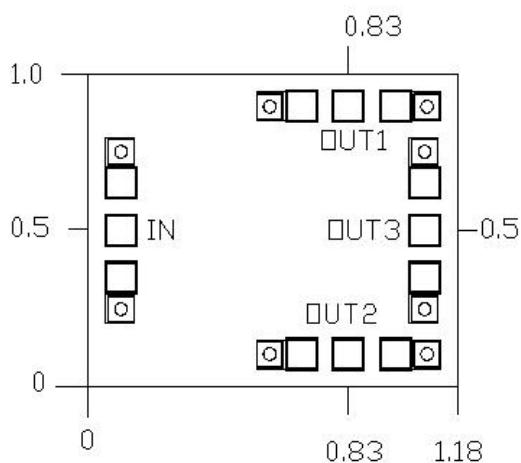
Input return loss



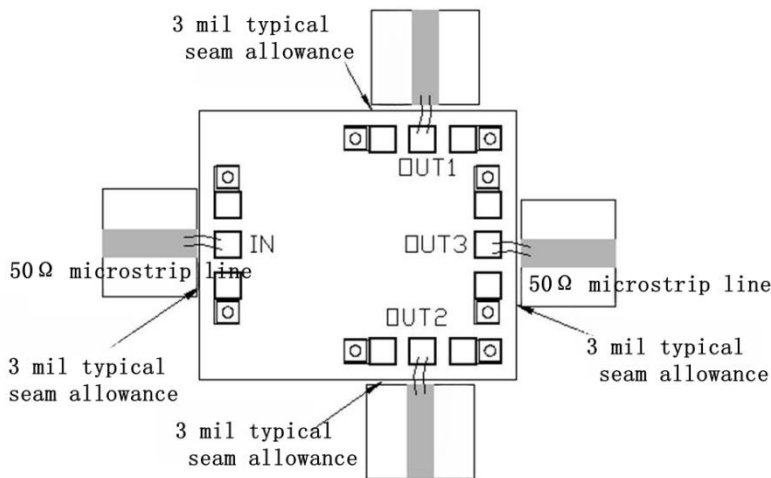
output return loss



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).