

## Performance Characteristics:

- Frequency band: 6-18GHz
- Insertion loss: 1.0dB
- Insertion loss fluctuation:  $\pm 0.3$ dB
- Isolation: 16dB
- Input return loss: 10dB
- Output return loss: 16dB
- Chip size: 2.2mm $\times$ 1.3mm $\times$ 0.1mm

## Product Description:

CW-PD30618 is a GaAs MMIC 0° three-way power splitter chip. The power splitter chip has the characteristics of low plug loss, high isolation, small size and easy integration, and its frequency range covers 6~18GHz.

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

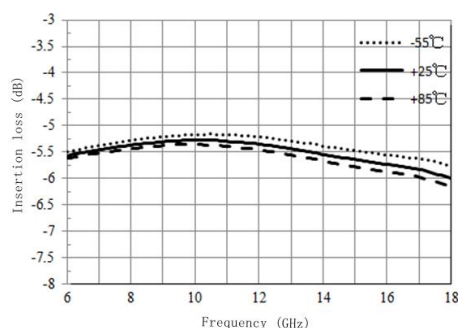
Indicators	Minimum	Typical value	Maximum value	Units
Frequency range	6~18			GHz
Insertion loss	-	1.0	1.2	dB
Fluctuations in plug loss	-	$\pm 0.3$	-	dB
isolation	16	20	-	dB
Input return loss	10	15	-	dB
Output return loss	16	20	-	dB

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

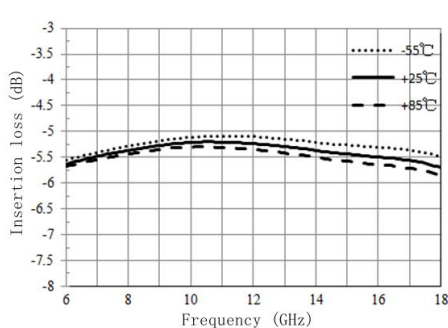
Input power	+33dBm
Storage temperature	-65°C~+150°C
Service temperature	-55°C~+85°C

## Typical curve:

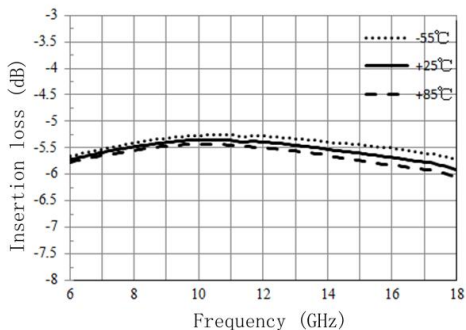
2 port insertion loss



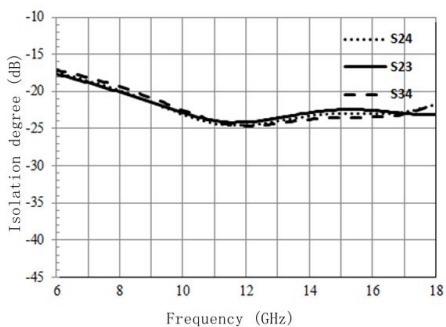
3 port insertion loss



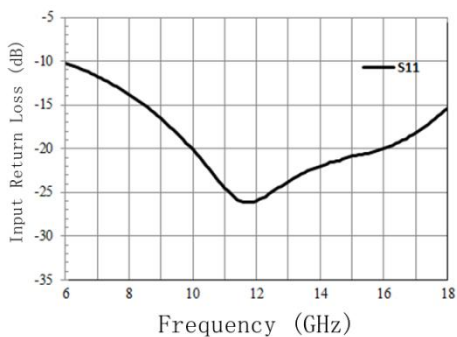
4-Port insertion loss



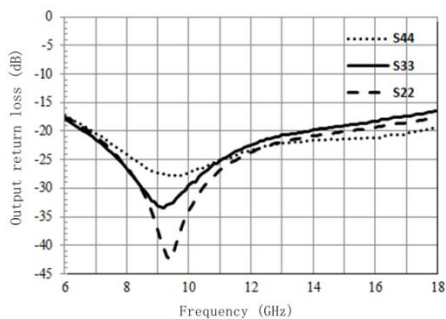
isolation



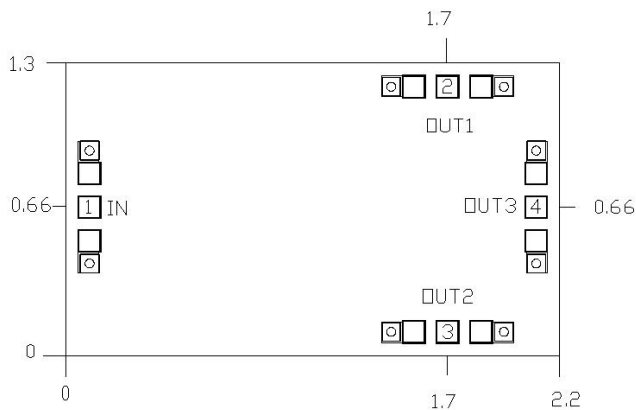
Input return loss



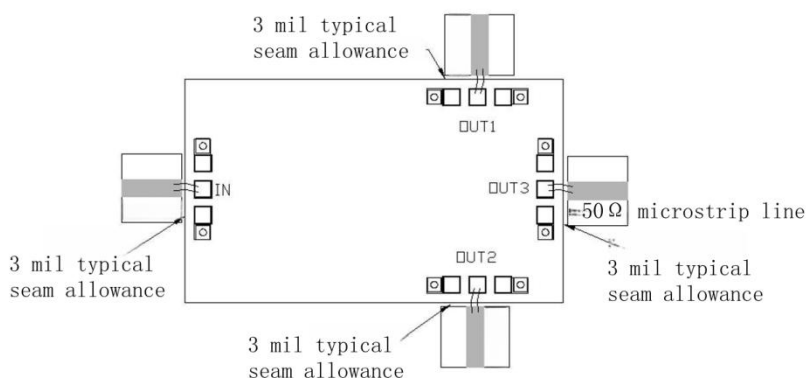
output return loss



**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 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).