

Performance Characteristics:

- Frequency range: 100MHz~4GHz
- Insertion loss: 0.7dB
- Input return loss: 14dB
- Output return loss: 14dB
- Isolation degree: 40dB
- Chip size: 1.38mm×1.0mm×0.1mm

Product Description:

CW-SW200104 is a GaAs MMIC positive pressure absorption single-pole two-throw switch chip that provides less than 1dB of insertion loss and greater than 38dB of isolation in the frequency range of 100 MHz to 4GHz. The CW-SW200104 uses +5V power supply.

Electrical parameters: (TA=25°C, VDD=+5V)

Index	Minimum	Typical value	Maximum value	Units
Radio frequency	0.1~4			GHz
Insertion loss	-	0.7	1	dB
Input return loss	-	14	-	dB
Output return loss	-	14	-	dB
isolation	38	40	-	dB
Enter P1dB	-	25	-	dBm

Use limiting parameters:

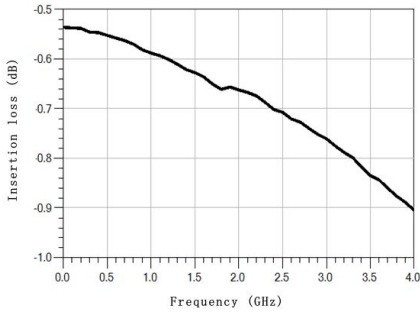
Maximum input power	30dBm
Storage temperature	-65°C-150°C
Service temperature	-55°C-85°C

Switch truth table:

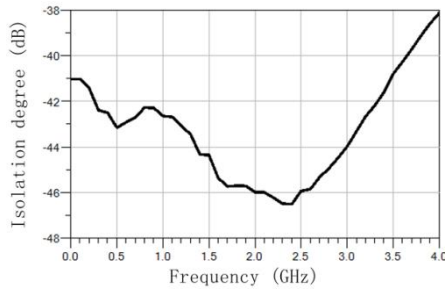
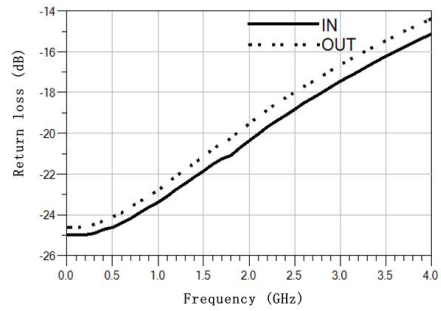
VDD	VCTL	RF1	RF2
5	0	OFF	ON
5	5	ON	OFF

Typical curves:

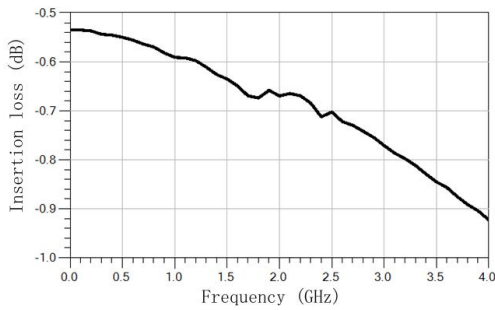
RF1-ON



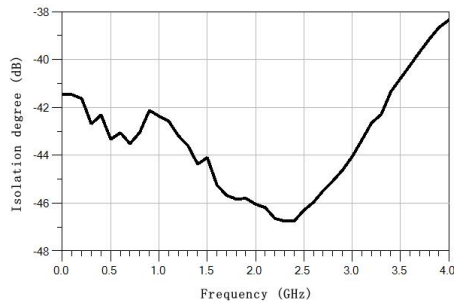
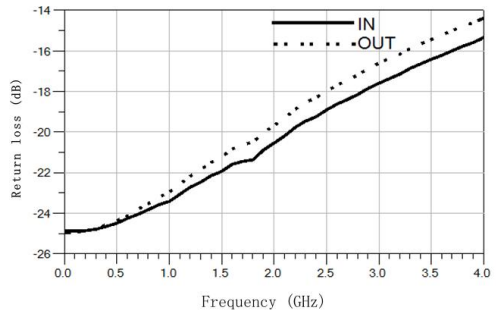
RF2-OFF



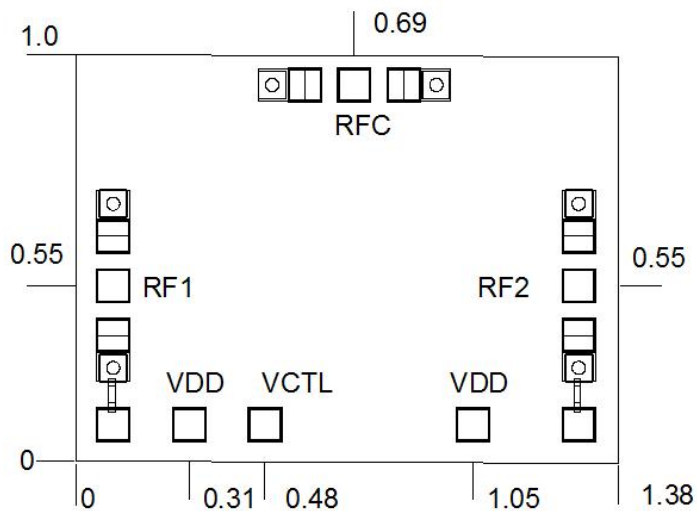
RF1-OFF



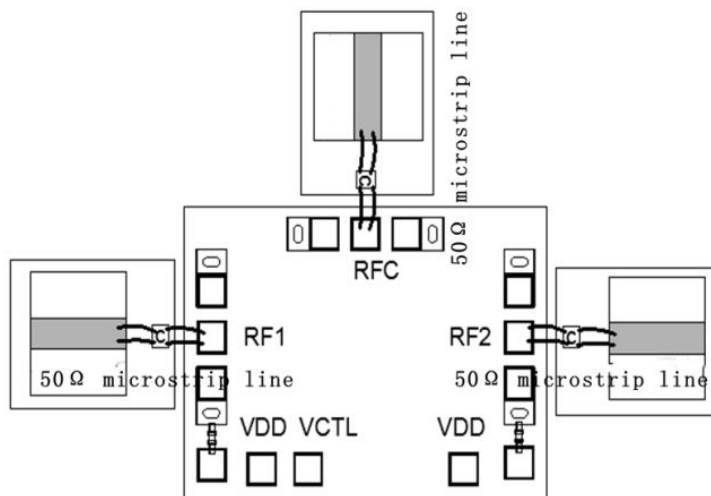
RF2-ON



Size drawing: (unit mm)



Suggested assembly drawing:



Instructions:

Note: I/O no straight capacitance, all C capacitance value size is 100PF.

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).