Performance Characteristics:

- Frequency band: DC~4GHz
- Insertion loss: 0.6dB
- Isolation: 48dB
- Control voltage: 0/-5V
- Chip size: 0.90mm×0.92mm×0.1mm

Product Description:

CW-SW20004 is a GaAs MMIC reflective single-pole double-throw switch chip, its frequency range covers DC ~4GHz, the entire band insertion loss is less than 0.6dB, the isolation is greater than 48dB, CW-SW20004 uses 0/ -5V power supply.

Electrical parameters: (T_A=25℃, Vs=0/-5V)

Indicators	Minimum	Typical value	Maximum value	Units
Frequency range	DC~4			GHz
Insertion loss	-	0.6	-	dB
isolation	48	-	-	dB
Input voltage standing wave ratio	-	1.5	-	-
Output voltage standing wave ratio	-	1.5	-	-

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

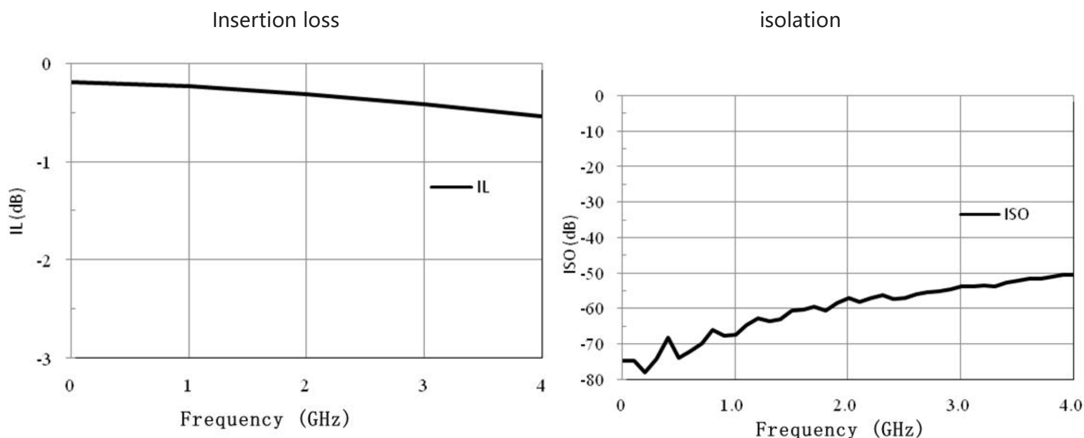
Input power	+30dBm
Control voltage	-8~+1V
Storage temperature	-65℃~150℃
Service temperature	-55℃~125℃

Switch truth table:

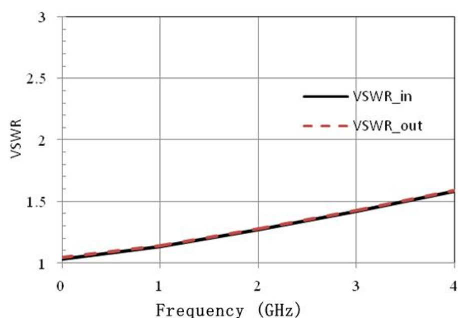
A	B	IN-1	IN-2
-5	0	ON	OFF
-0	-5	OFF	ON

Typical curves:

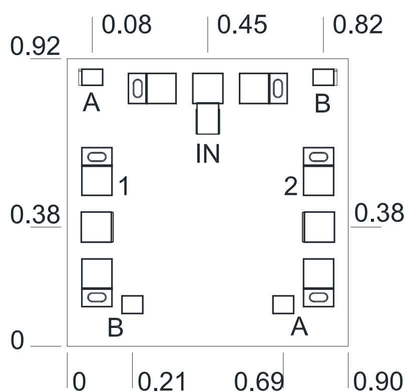
Insertion loss　　　　　　　　　　　　isolation



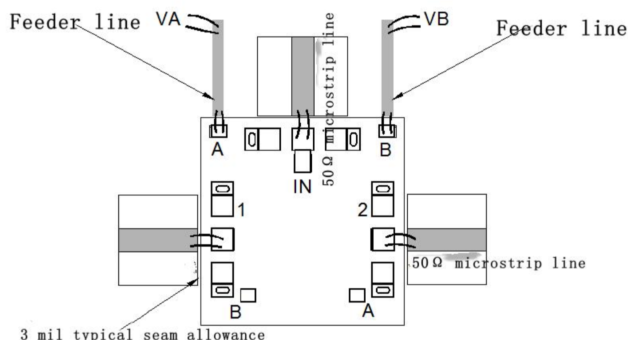
Input/output voltage standing wave ratio



Size diagram : (unit mm)



Suggested assembly drawing:



Instructions:

Note: I/O no straight capacitance

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).