

Performance Characteristics:

- Frequency range: DC~67GHz
- Insertion loss: 6dB
- Isolation level: 25dB
- Input/output standing wave: 2/2
- Chip size: 1.80mmx1.50mm x0.07mm
- Nanosecond switching speed and excellent power processing capability

Product Introduction:

When the chip is working, the input terminal is matched with 50 Ω, and its frequency range covers DC~67GHz. The chip is powered at 0V/-5V. The switch speed is less than 10ns, and the 1dB compressed input power is +15dBm.

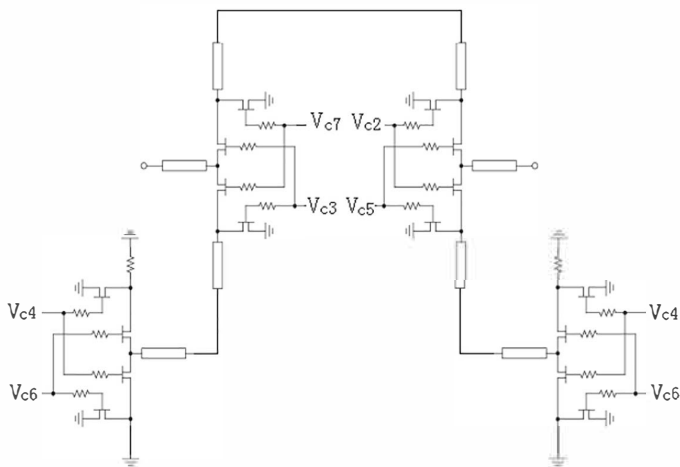
Electrical parameters (TA=+25°C, VC=-5V/0V)

Index	Min	Typ	Max	Unit
Frequency Range	DC~67			GHz
Insertion Loss			6	dB
Isolation Degree		25		dB
Open Standing Wave		1.8	2	-
Closed Standing Wave		1.8	2	-

Use Restriction Parameters

Control Voltage Range	-8V~+0.5V
Maximum Input Power	+30dBm
Storage Temperature	-65°C~+150°C
Usage Temperature	-55°C~+125°C

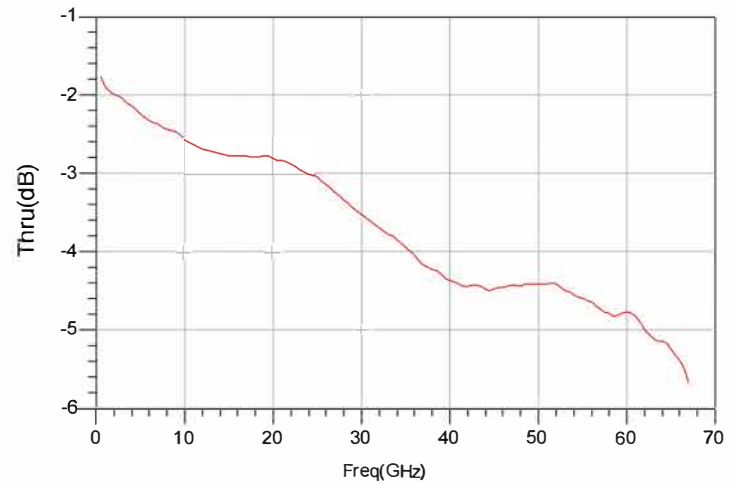
Schematic Diagram



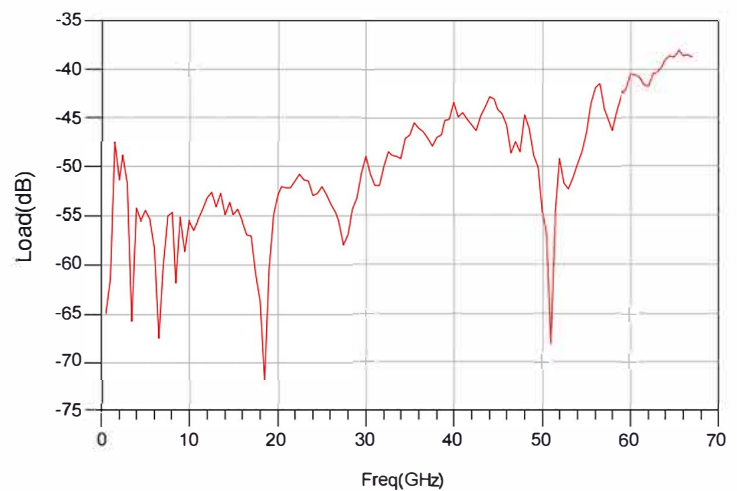
Typical Curve

In order to provide users with a more intuitive understanding of the performance indicators of the chip, the following are curve graphs for each indicator.

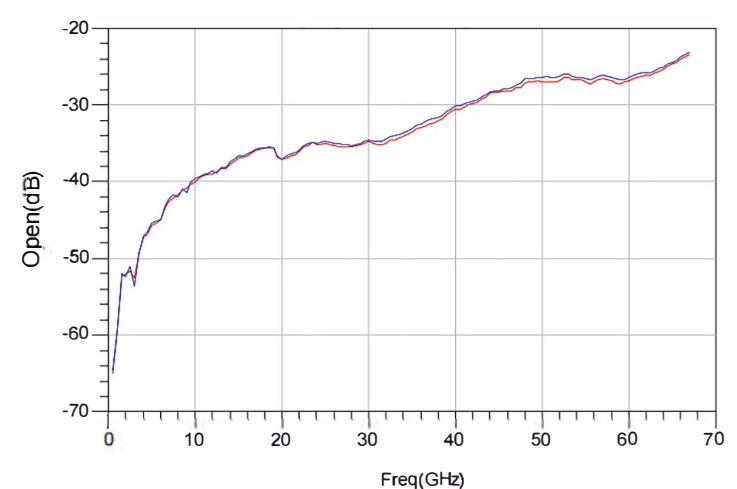
Insertion Loss vs Frequency (Thru)



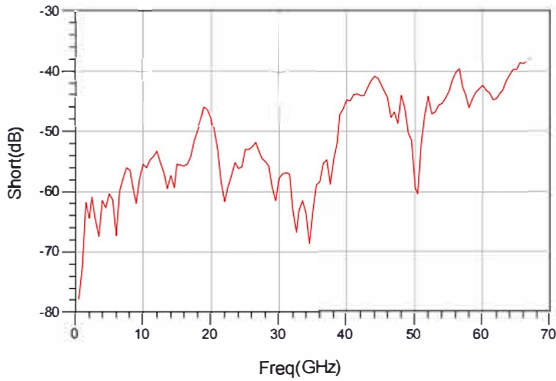
Isolation vs Frequency (Load)



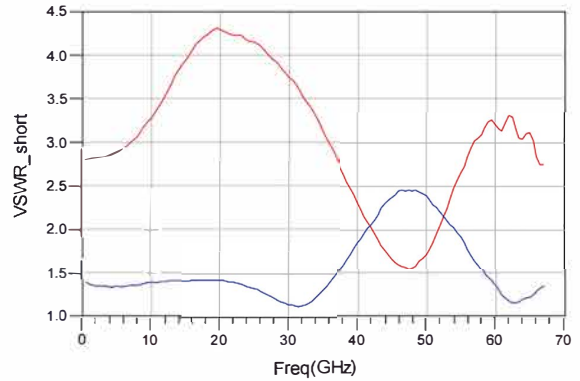
Isolation vs Frequency (Open)



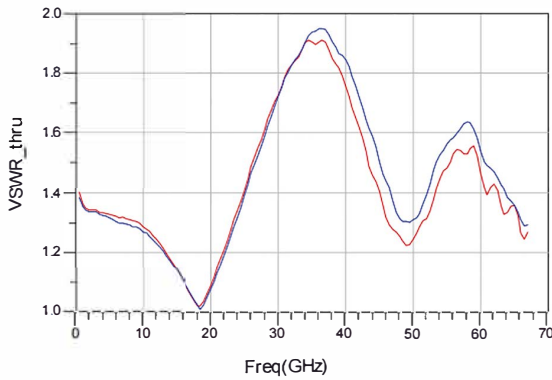
Isolation vs Frequency (Short)



Open Standing Wave vs Frequency (Short)



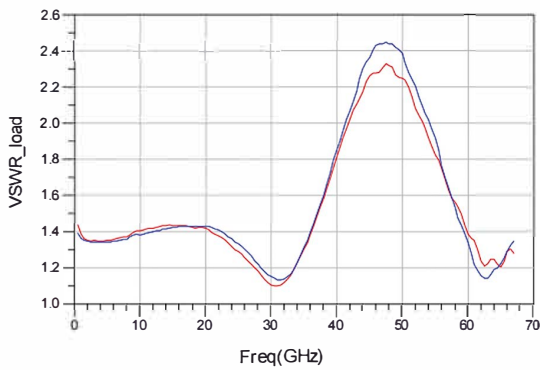
Open Standing Wave vs. Frequency (Thru)



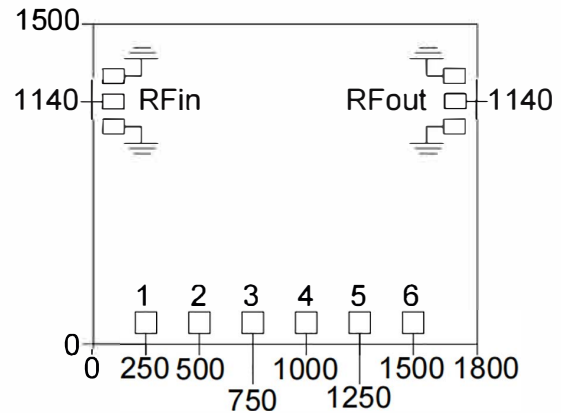
Truth table

PAD	1 Vc6	2 Vc7	3 Vc3	4 Vc5	5 Vc2	6 Vc4
THRU	0	0	-5	-5	0	-5
Load	0	-5	0	0	-5	-5
Short	-5	-5	0	0	-5	0
Open_1P	0	0	-5	-5	-5	-5
Open_2P	0	-5	-5	-5	0	-5

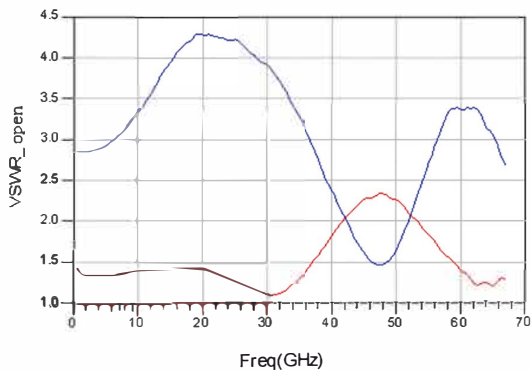
Open Standing Wave vs. Frequency (load)



External Dimensions



Open Standing Wave vs. Frequency (OPen)



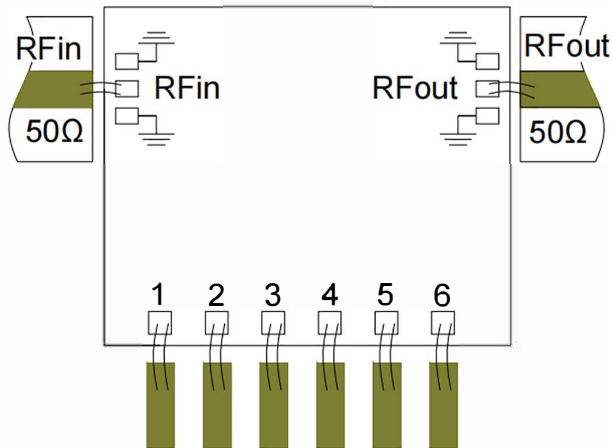
Note:

All dimensions are measured in micrometers (μm);

Microwave pressure point size $70 \times 100 \mu\text{m}^2$

DC voltage point size $100 \times 100 \mu\text{m}^2$

Suggested Assembly Diagram



Note:

- 1) Assemble and use in a purified environment.
- 2) GaAs material is very brittle and the chip surface is easily damaged (do not touch the surface), so caution must be taken when using it.
- 3) Use a wire with a diameter of 25 μm and a bonding wire length of around 200 μm for bonding.
- 4) Input and output without DC blocking capacitors.
- 5) Use 80/20 gold tin sintering, with a sintering temperature not exceeding 300°C and a sintering time as short as possible, not exceeding 30 seconds.
- 6) This product is a sensitive device for static electricity. Please take precautions to prevent static electricity during storage and use.
- 7) Store in a dry and nitrogen environment.
- 8) Do not attempt to clean the surface of the chip using dry or wet chemical methods.
- 9) Please contact the supplier if you have any questions.