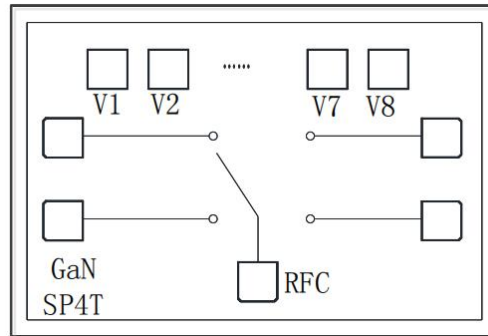


## Performance

- Frequency: DC~6GHz
- Insertion loss: 1.5dB
- Isolation: 32dB
- Input P-0.3: 47dBm
- Input/Output VSWR: 1.8:1
- Switching Time: 20ns
- Control Mode: 0/-40V
- Voltage control reflective switch
- Chip size: 2.2\*1.63\*0.08mm

## Function Diagram



## Electrical Specifications (Ta=+25°C, V1~V2=0V/-40V, F=DC~6GHz)

| Symbol | Parameter           | Min. | Typ. | Max. | Unit |
|--------|---------------------|------|------|------|------|
| Li     | Insertion Loss      | -    | 1.5  | -    | dB   |
| ISO    | Isolation           | -    | 32   | -    | dB   |
| VSWR   | Input / Output VSWR | -    | 1.8  | -    | -    |

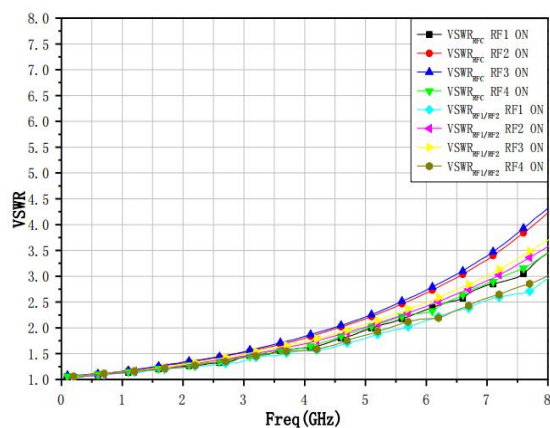
## Absolute Maximum Ratings (Ta=+25°C)

| Symbol | Parameter                   | Value     | Notes              |
|--------|-----------------------------|-----------|--------------------|
| V1,2   | Control Voltage             | -60V      |                    |
| Pcw    | Input Continuous Wave Power | 48dBm     |                    |
| Tch    | Channel Temperature         | 225°C     |                    |
| T      | Sintering Temperature       | 310°C     | 30s, N2 protection |
| Tstg   | Storage Temperature         | -65~150°C |                    |

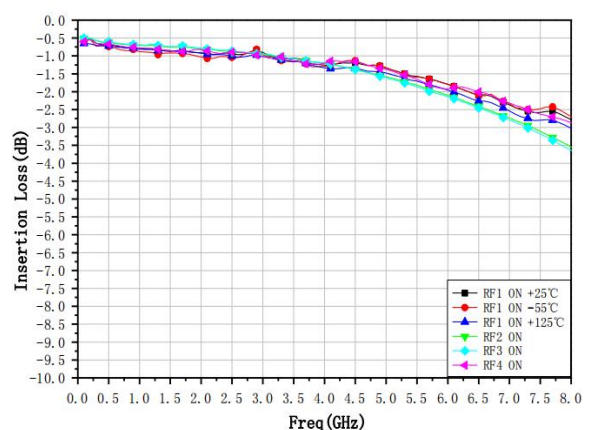
Exceed any of above listed ratings may cause permanent damage.

## Test Curves (Ta=+25°C, (V=-40V))

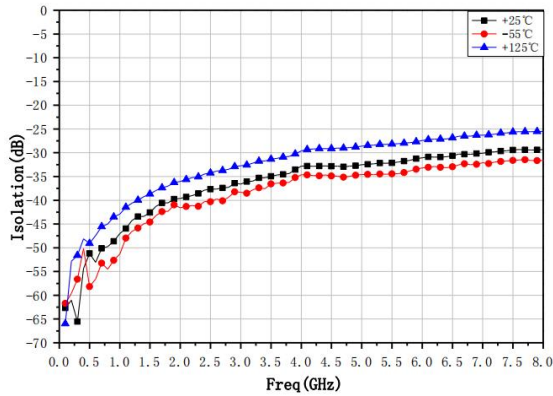
VSWR



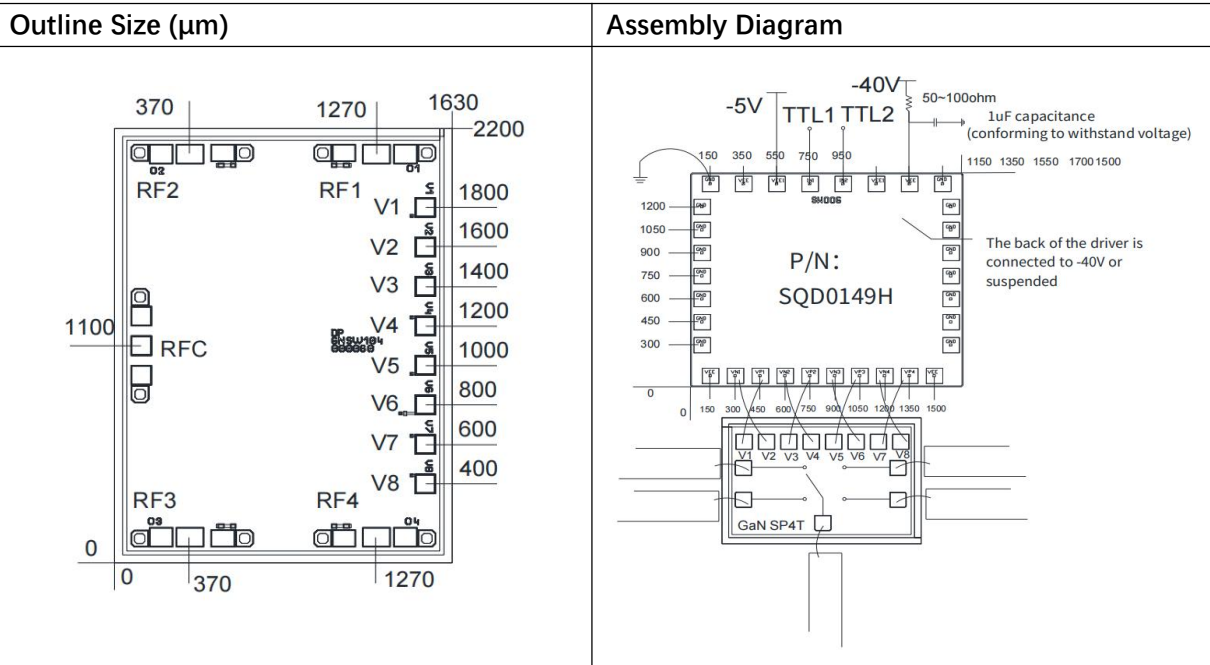
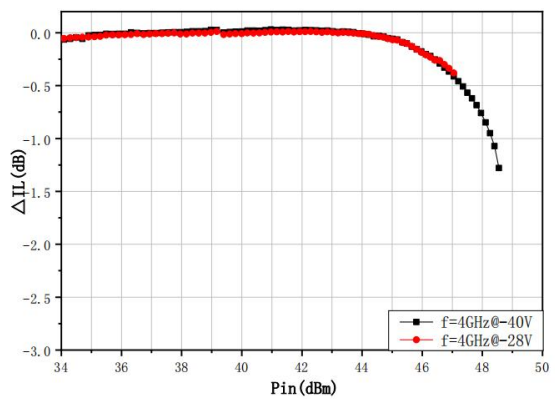
Insertion Loss @ Different temperature



Isolation @ Different temperature



Input Power (Y axis is normalized value of I.L)



Note: Recommended single wire length for RF port is >0.8mm, <1.2mm.  
Dual wires length is >1mm, <1.5mm.

#### PIN Definition

| PIN                     | Description                              |
|-------------------------|------------------------------------------|
| RF1、RF2、RF3、RF4         | RF ports, 50Ω, no block capacitor        |
| RFc                     | RF common ports, 50Ω, no block capacitor |
| V1、V2、V3、V4、V5、V6、V7、V8 | Control Ports                            |
| GND                     | Bottom must be grounded                  |

**Truth Table**

| V1 | V2 | V3 | V4 | V5 | V6 | V7 | V8 | RF <sub>1</sub> | RF <sub>2</sub> | RF <sub>3</sub> | RF <sub>4</sub> |
|----|----|----|----|----|----|----|----|-----------------|-----------------|-----------------|-----------------|
| 0  | 1  | 0  | 1  | 0  | 1  | 0  | 1  | OFF             | OFF             | OFF             | OFF             |
| 1  | 0  | 0  | 1  | 0  | 1  | 0  | 1  | ON              | OFF             | OFF             | OFF             |
| 0  | 1  | 1  | 0  | 0  | 1  | 0  | 1  | OFF             | ON              | OFF             | OFF             |
| 0  | 1  | 0  | 1  | 1  | 0  | 0  | 1  | OFF             | OFF             | ON              | OFF             |
| 0  | 1  | 0  | 1  | 0  | 1  | 1  | 0  | OFF             | OFF             | OFF             | ON              |

Note: 1. During negative voltage control: Low level "0" is -28V~-40V, High level "1" is 0V~0.5V;  
 During positive voltage control: Low level "0" is 0V~0.5V, High level "1" is +28V~+40V;  
 2. Performance is same under condition of -28V ~ -40V.