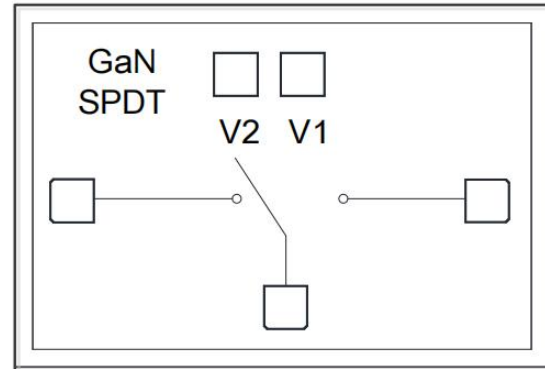


### Performance

- Technology: 0.25um GaN FET
- Frequency: 10~23GHz
- Insertion loss: 1.0dB
- Isolation: 28dB
- Input P-0.3: 46.5dBm
- Input/Output VSWR: 1.5:1
- Switching Time: 20ns
- Control Mode: 0/-40V
- Voltage control reflective switch
- Chip size: 2\*1.0\*0.08mm

### Function Diagram



### Electrical Specifications (Ta=+25°C, V1~V2=0V/-40V, F=10~23GHz)

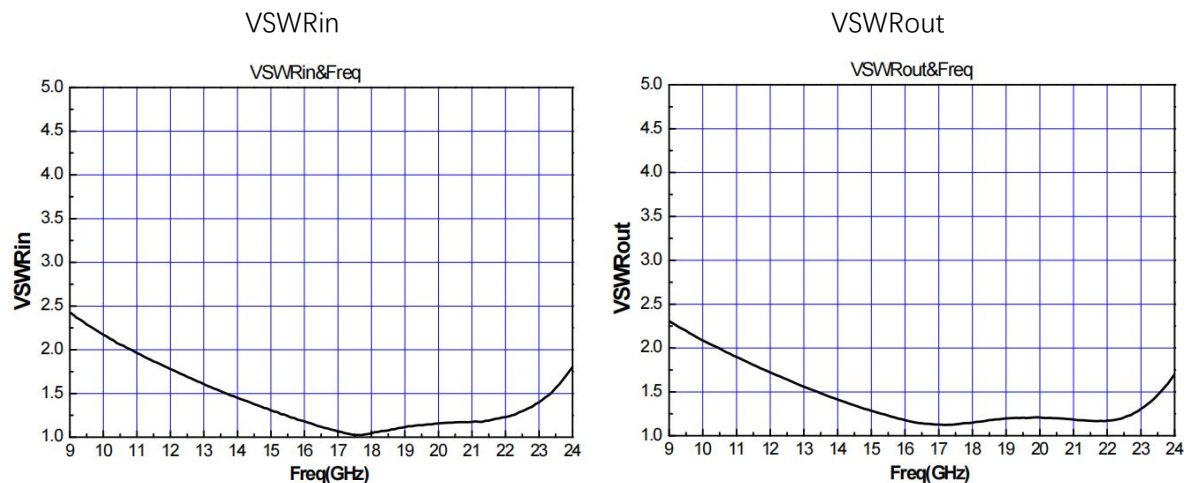
| Symbol | Parameter           | Min. | Typ. | Max. | Unit |
|--------|---------------------|------|------|------|------|
| Li     | Insertion Loss      | -    | 1.0  | -    | dB   |
| ISO    | Isolation           | -    | 28   | -    | dB   |
| VSWR   | Input / Output VSWR | -    | 1.5  | -    | -    |

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

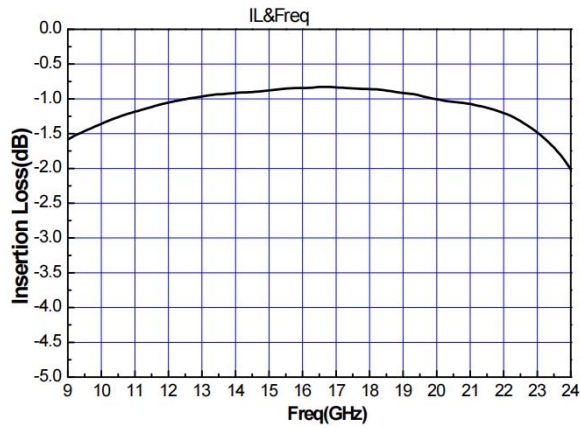
| Symbol           | Parameter                   | Value     | Notes              |
|------------------|-----------------------------|-----------|--------------------|
| V1,2             | Control Voltage             | -60V      |                    |
| P <sub>cw</sub>  | Input Continuous Wave Power | 47.5dBm   |                    |
| T <sub>ch</sub>  | Channel Temperature         | 225°C     |                    |
| T                | Sintering Temperature       | 310°C     | 30s, N2 protection |
| T <sub>stg</sub> | Storage Temperature         | -55~150°C |                    |

Exceed any of above listed ratings may cause permanent damage.

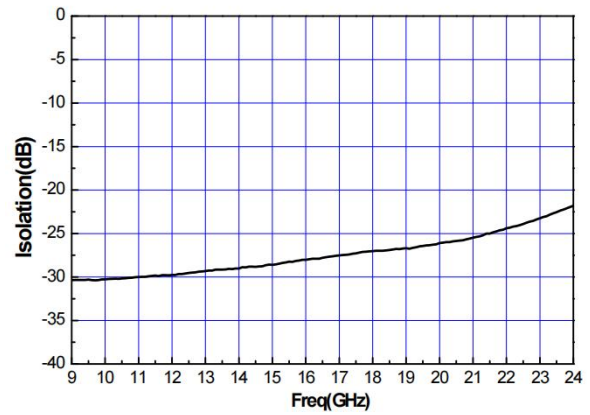
### Test Curves (Ta=+25°C, (V<sub>1,2</sub>=-40V))



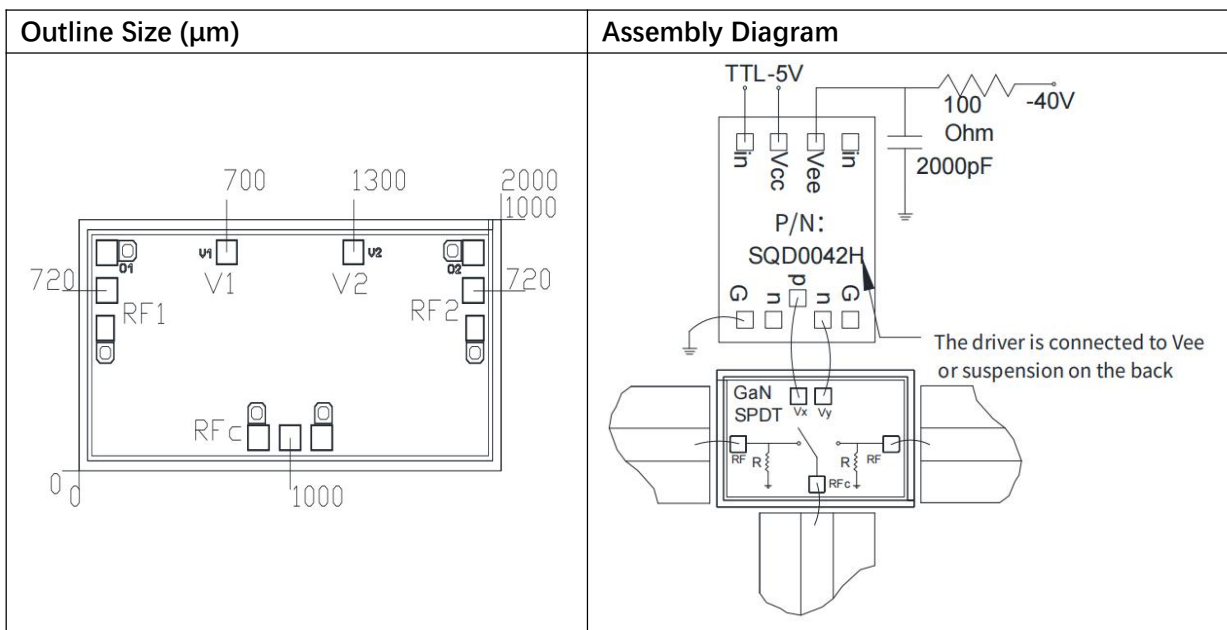
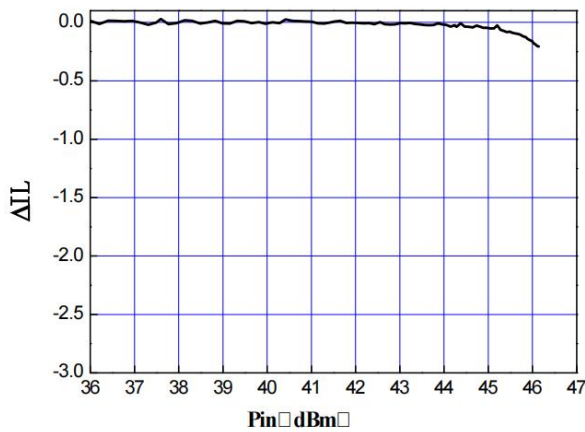
Insertion Loss



Isolation



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



Note: RF input/output dual wire length is less than 300μm.

**PIN Definition**

| PIN     | Description             |
|---------|-------------------------|
| RF1、RF2 | RF ports, 50Ω           |
| RFc     | RF common ports, 50Ω    |
| V1、V2   | Control Ports           |
| GND     | Bottom must be grounded |

**Truth Table**

| V1 | V2 | RF <sub>c</sub> →RF1 | RF <sub>c</sub> →RF2 |
|----|----|----------------------|----------------------|
| 1  | 0  | OFF                  | ON                   |
| 0  | 1  | ON                   | OFF                  |

Note: Low level "0" is -28V~-40V, High level "1" is 0V~0.5V