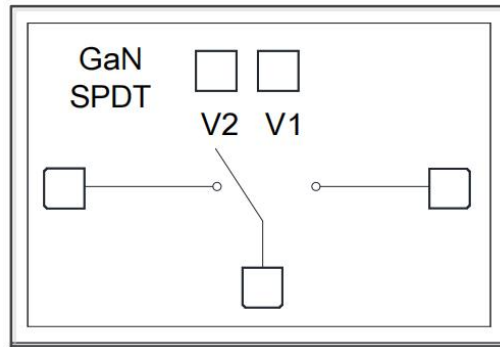


## Performance

- Frequency: 20~21GHz
- Insertion loss: 0.9dB
- Isolation: 50dB
- Input P-0.3: 46dBm
- Input/Output VSWR: 1.3:1
- Switching Time: 20ns
- Control Mode: 0/-40V
- Voltage control reflective switch
- Chip size: 2.5\*2.2\*0.08mm

## Function Diagram



## Electrical Specifications (Ta=+25°C, V1~V2=0V/-40V, F=20~21GHz)

| Symbol | Parameter           | Min. | Typ. | Max. | Unit |
|--------|---------------------|------|------|------|------|
| Li     | Insertion Loss      | -    | 0.9  | -    | dB   |
| ISO    | Isolation           | -    | 50   | -    | dB   |
| VSWR   | Input / Output VSWR | -    | 1.3  | -    | -    |

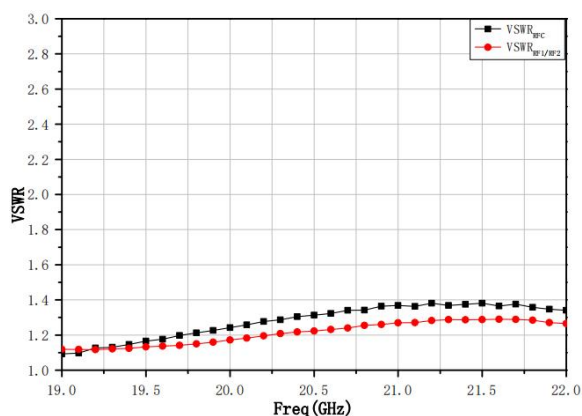
## Absolute Maximum Ratings (Ta=+25°C)

| Symbol | Parameter                   | Value     | Notes              |
|--------|-----------------------------|-----------|--------------------|
| V1,2   | Control Voltage             | -60V      |                    |
| Pcw    | Input Continuous Wave Power | 47dBm     |                    |
| Tch    | Channel Temperature         | 225°C     |                    |
| T      | Sintering Temperature       | 310°C     | 30s, N2 protection |
| Tstg   | Storage Temperature         | -65~150°C |                    |

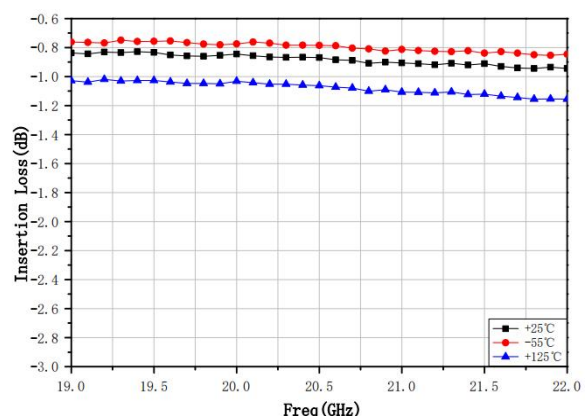
Exceed any of above listed ratings may cause permanent damage.

## Test Curves (Ta=+25°C, (V1,2=-40V))

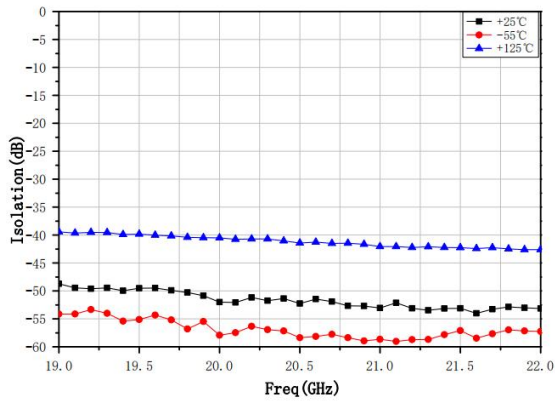
VSWR



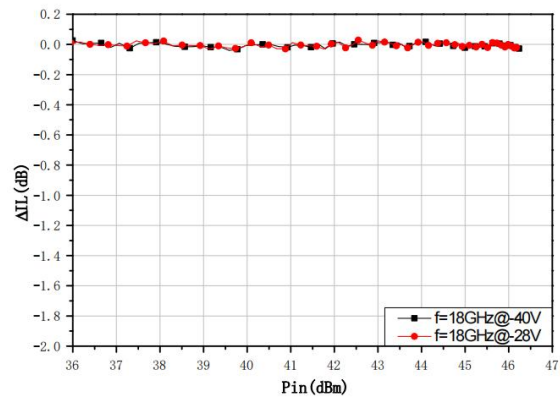
Insertion Loss @ Different temperature

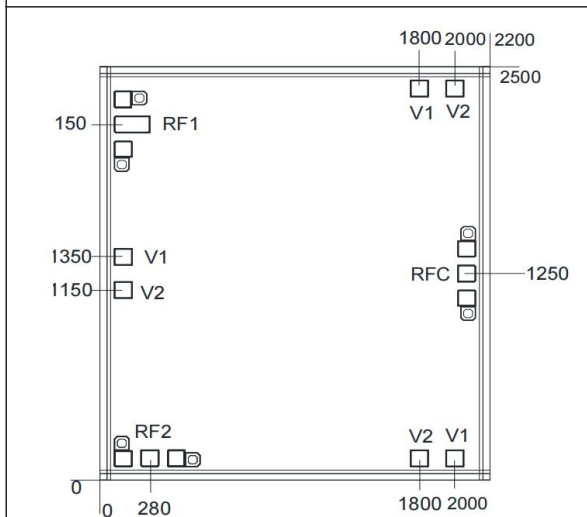
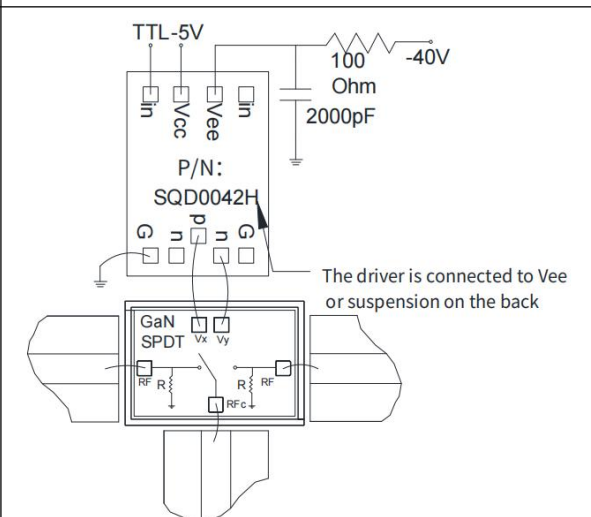


Isolation @ Different temperature



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



| Outline Size (μm)                                                                  | Assembly Diagram                                                                    |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  |  |

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

### PIN Definition

| PIN     | Description                              |
|---------|------------------------------------------|
| RF1、RF2 | RF ports, 50Ω, no block capacitor        |
| RFc     | RF common ports, 50Ω, no block capacitor |
| V1、V2   | Control Ports                            |
| GND     | Bottom must be grounded                  |

### Truth Table

| V1 | V2 | RFc→RF1 | RFc→RF2 |
|----|----|---------|---------|
| 1  | 0  | OFF     | ON      |
| 0  | 1  | ON      | OFF     |

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

2. Performance is same under condition of -28V ~ -40V