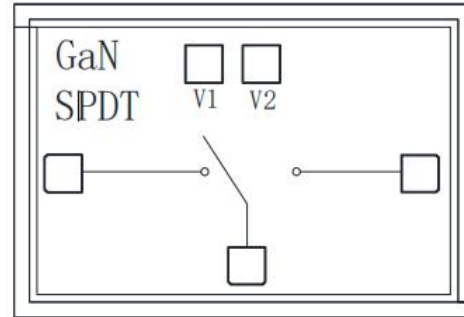


### Performance

- Technology: 0.25um GaN FET
- Frequency: DC~3.0GHz
- Insertion loss: 0.3dB
- Isolation: 30dB
- Input P-0.3: 46.5dBm
- Input/Output VSWR: 1.2:1
- Switching Time: 20ns
- Control Mode: 0/-40V
- Voltage control reflective switch
- Chip size: 1.2\*0.82\*0.08mm

### Function Diagram



### Electrical Specifications (Ta=+25°C, V1~V2=0/-40V, F=DC~3GHz)

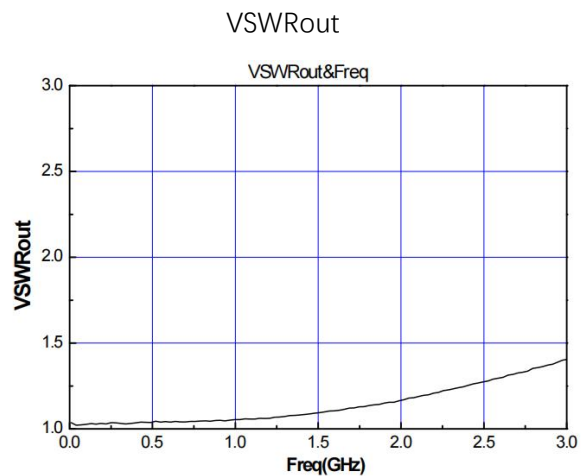
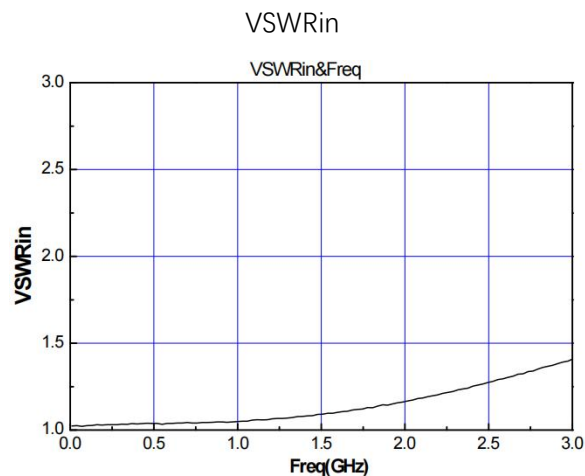
| Symbol | Parameter           | Min. | Typ. | Max. | Unit |
|--------|---------------------|------|------|------|------|
| Li     | Insertion Loss      | -    | 0.4  | -    | dB   |
| ISO    | Isolation           | -    | 30   | -    | dB   |
| VSWR   | Input / Output VSWR | -    | 1.2  | -    | -    |

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

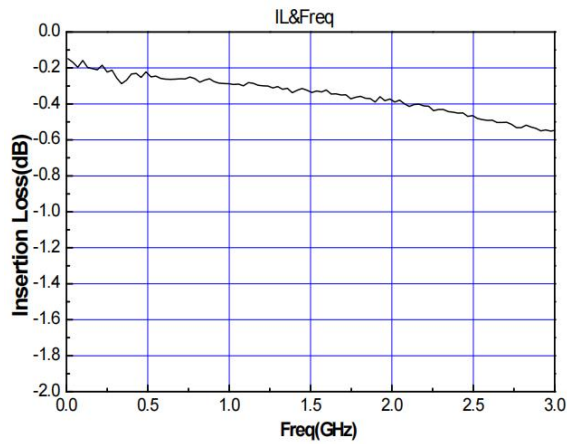
| Symbol | Parameter                   | Value     | Notes              |
|--------|-----------------------------|-----------|--------------------|
| V1,2   | Control Voltage             | -60V      |                    |
| Pcw    | Input Continuous Wave Power | 47.5dBm   |                    |
| Tch    | Channel Temperature         | 225°C     |                    |
| T      | Sintering Temperature       | 310°C     | 30s, N2 protection |
| Tstg   | Storage Temperature         | -55~150°C |                    |

Exceed any of above listed ratings may cause permanent damage.

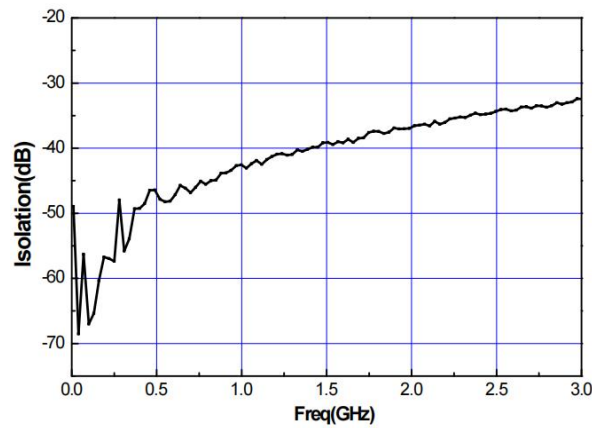
### Test Curves (Ta=+25°C, (V1,2=-40V))



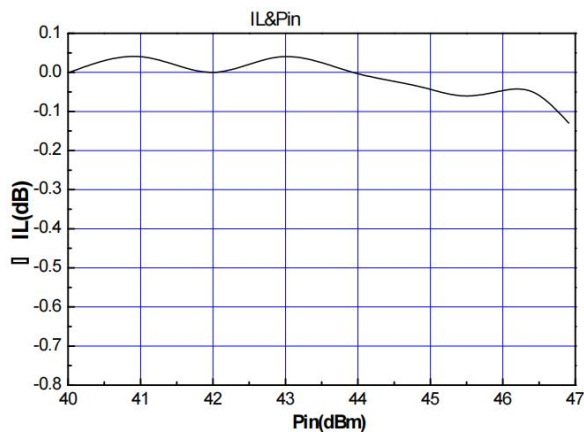
Insertion Loss



Isolation



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



| Outline Size (μm) | Assembly Diagram                                                                                                                                                             |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <p>TTL-5V<br/>100 Ohm<br/>-40V<br/>2000pF</p> <p>P/N: SKDN102000030</p> <p>The driver is connected to Vee or suspension on the back</p> <p>GaN SPDT<br/>Vx Vy<br/>RF RFc</p> |

Note: 1. 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 | RF ports, 50Ω           |
| RFc     | RF common ports, 50Ω    |
| V1、V2   | Control Ports           |
| GND     | Bottom must be grounded |

**Truth Table**

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

Note: Low level “0” is -28V~-40V, High level “1” is 0V~0.5V;