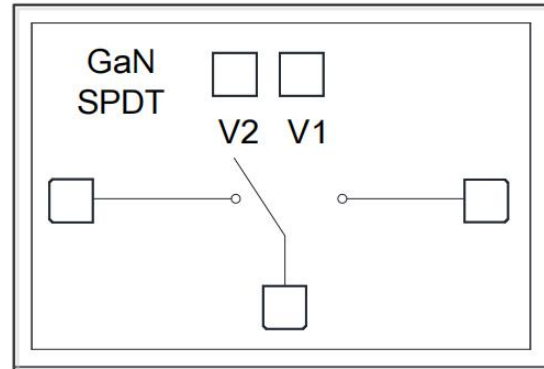


Performance

- Technology: 0.25um GaN FET
- Frequency: 8~18GHz
- Insertion loss: 1.0dB
- Isolation: 30dB
- 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: 2.0*1.0*0.08mm

Function Diagram



Electrical Specifications (Ta=+25°C, V1~V2=0V/-40V, F=8~18GHz)

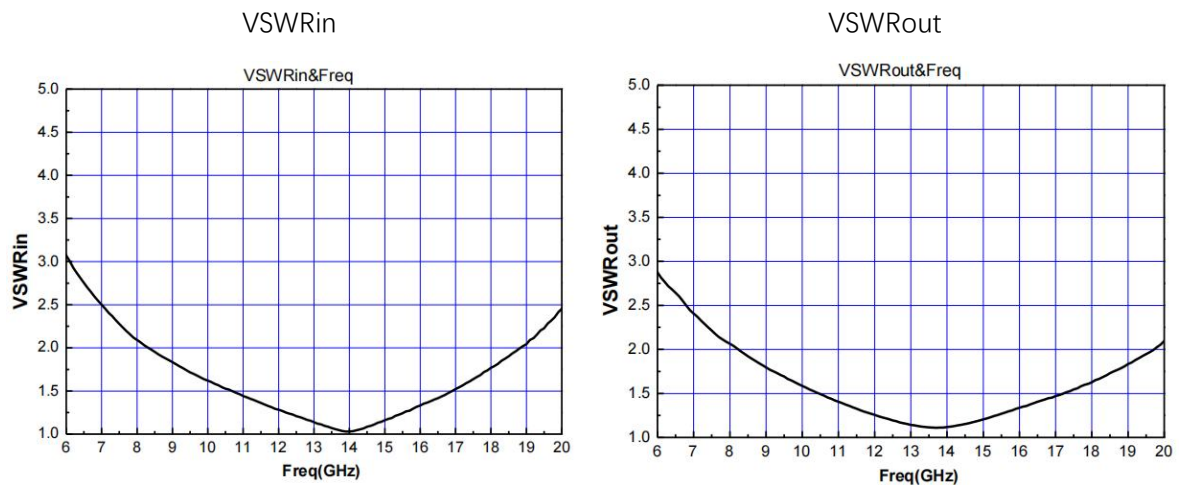
Symbol	Parameter	Min.	Typ.	Max.	Unit
Li	Insertion Loss	-	1.0	-	dB
ISO	Isolation	-	30	-	dB
VSWR	Input / Output VSWR	-	1.5	-	-

Absolute Maximum Ratings (Ta=+25°C)

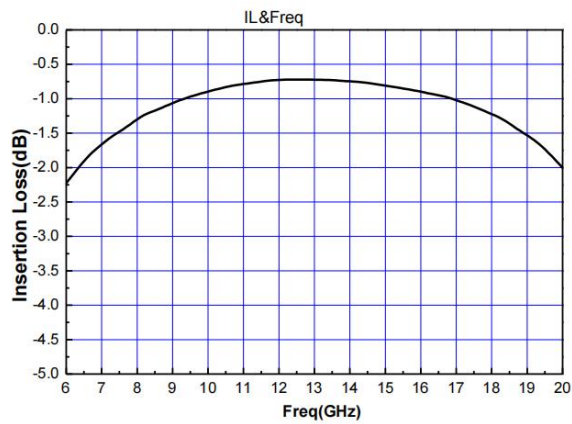
Symbol	Parameter	Value	Notes
V1,2	Control Voltage	-60V	
Pcw	Input Continuous Wave Power	47.5dBm	
Tch	Channel Temperature	225°C	
T	Sintering Temperature	310°C	30s, N2 protection
Tstg	Storage Temperature	-55~150°C	

Exceed any of above listed ratings may cause permanent damage.

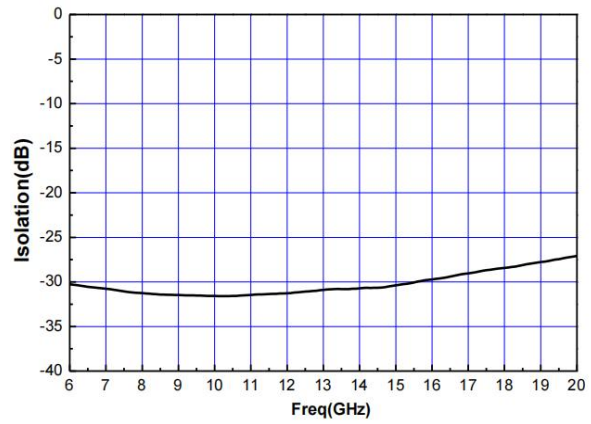
Test Curves (Ta=+25°C, (V1,2=-40V))



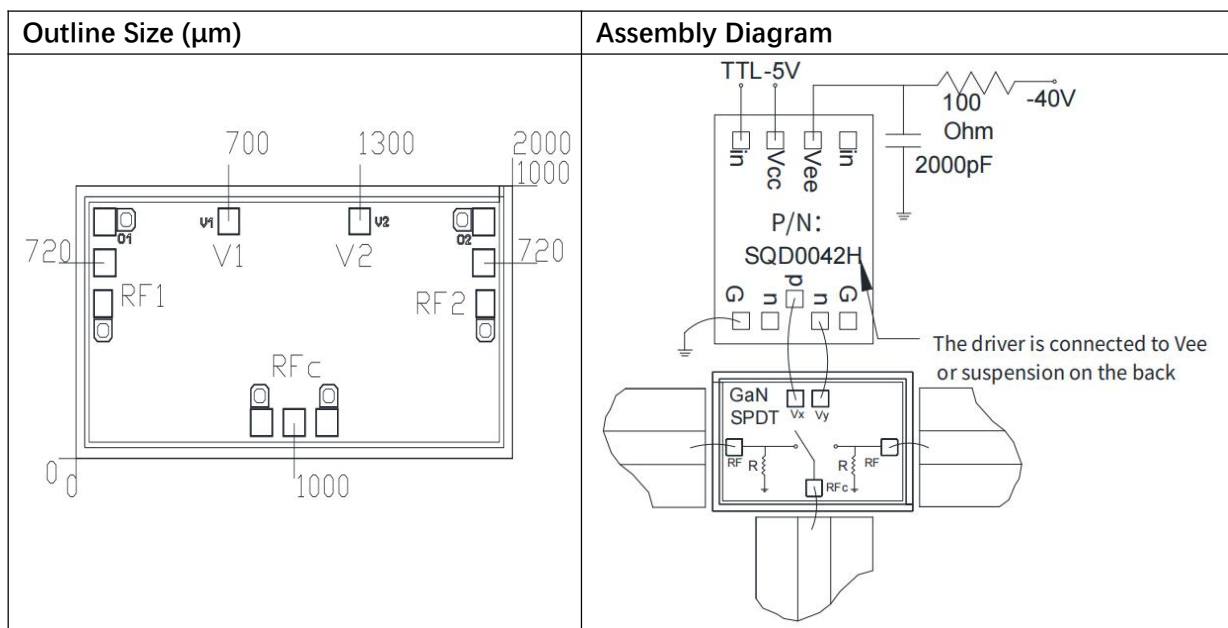
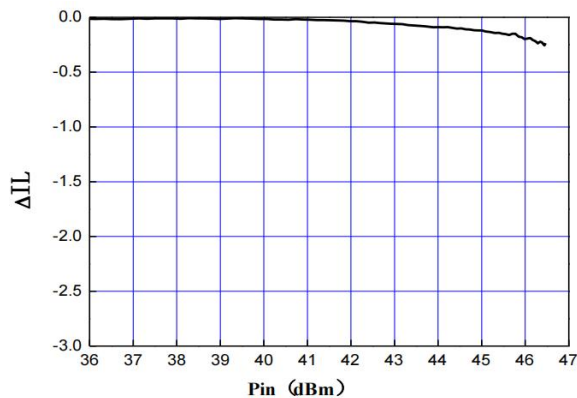
Insertion Loss



Isolation



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



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 _c →RF ₁	RF _c →RF ₂
1	0	OFF	ON
0	1	ON	OFF

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

Note

- a) Use 80/20 gold tin for sintering, the sintering temperature should not exceed 300°C, and the sintering time should be as short as possible, not exceeding 30 seconds;
- b) The chip is an electrostatic sensitive device, and anti-static should be paid attention to during use, transportation and operation;
- c) Two bonding wires (gold wires with a diameter of 25 μm) are used for input and output, and the length of the bonding wire is about 300 μm is the best;
- d) This product is a hydrogen sensitive device with a hydrogen resistance of 20000ppm. It is recommended to control the hydrogen concentration in the sealed cavity when using it.