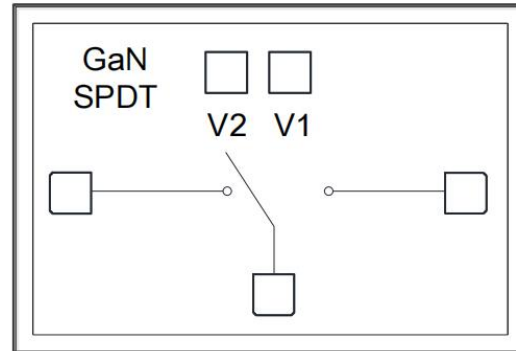


Performance

- Technology: 0.25um GaN FET
- Frequency: DC~18GHz
- Insertion loss: 1.2dB
- Isolation: 35dB
- Input P-0.3: 40dBm
- Input/Output VSWR: 1.4:1
- Switching Time: 10ns
- Control Mode: 0/-40V
- Voltage control reflective switch
- Chip size: 1.45*0.9*0.08mm

Function Diagram



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

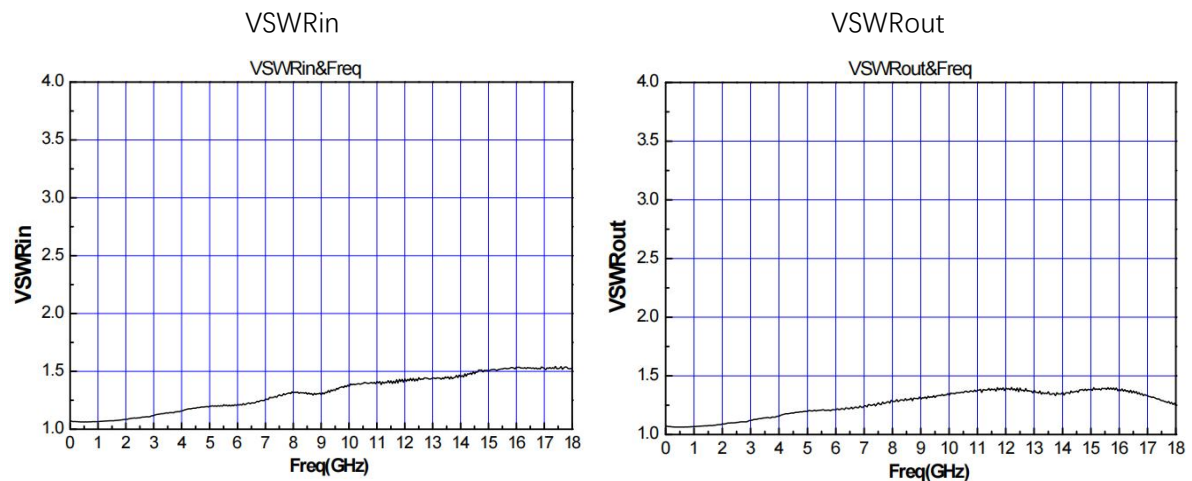
Symbol	Parameter	Min.	Typ.	Max.	Unit
Li	Insertion Loss	-	1.2	-	dB
ISO	Isolation	-	35	-	dB
VSWR	Input / Output VSWR	-	1.4	-	-

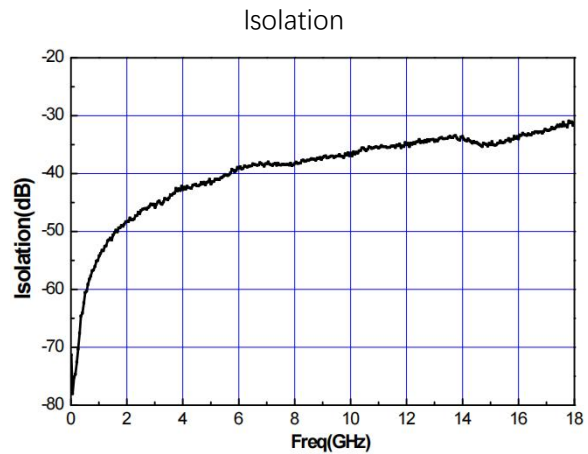
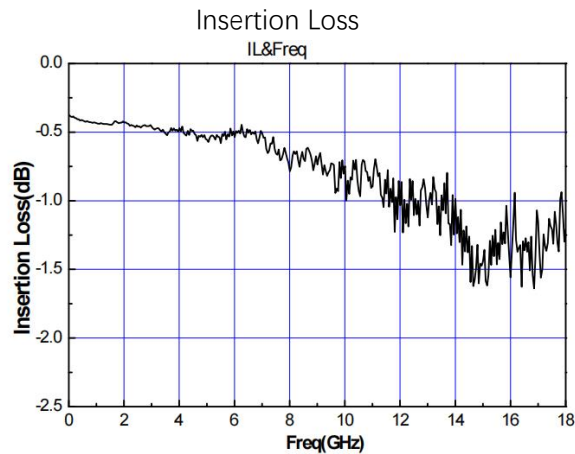
Absolute Maximum Ratings (Ta=+25°C)

Symbol	Parameter	Value	Notes
V1,2	Control Voltage	-60V	
P _{cw}	Input Continuous Wave Power	45dBm	
T _{ch}	Channel Temperature	225°C	
T	Sintering Temperature	310°C	30s, N2 protection
T _{stg}	Storage Temperature	-55~150°C	

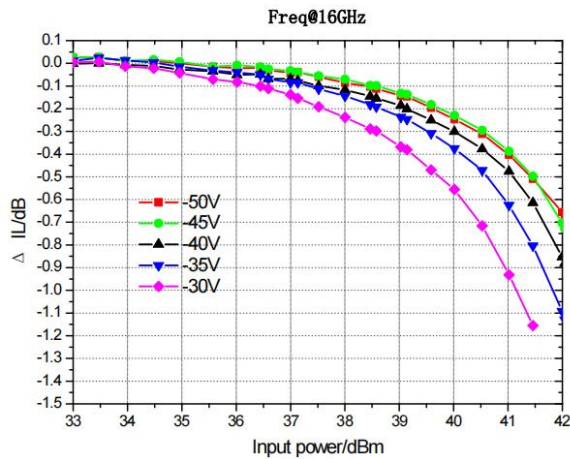
Exceed any of above listed ratings may cause permanent damage.

Test Curves (Ta=+25°C, (V_{1,2}=-40V))





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



Outline Size (μm)	Assembly Diagram
	TTL-5V -40V 100 Ohm 2000pF P/N: SQD0042H The driver is connected to Vee or suspension on the back

Note: 1, For same pads, choose any of them.

2, RF input/output gold wire length is less than 300 μm .

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
0	1	OFF	ON
1	0	ON	OFF

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