Features

Freq: DC～18GHz

Insertion Loss: 1 dB

Isolation: 40 dB

Supply Voltage: -5V

Control Voltage: 0/+5V

Chip Size: 1mm×1.14mm×0.1mm

General Description

The HG126KB is a reflective GaAs pHEMT SPDT switch chip. Covering DC to 18 GHz, this switch offers very high isolation of 40 dB and extremely low insertion loss of 1 dB. This switch operates using a positive control voltage of 0/+5V ,and requires -5V bias supply.

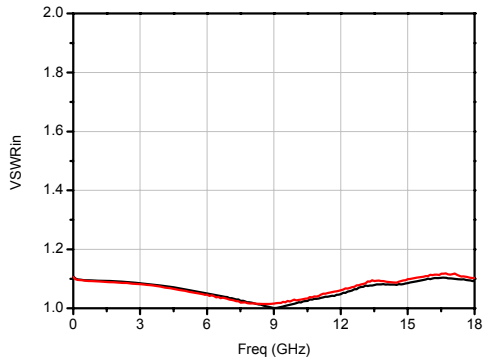
Electrical Specifications(T_A=25℃, Vdd = -5V)

Parameter	Min.	Typ.	Max.
Frequency Range(GHz)	DC～18		
Input VSWR	-	1.2	-
Output VSWR	-	1.2	-
Insertion Loss(dB)	-	1	-
Isolation(dB)	-	40	-

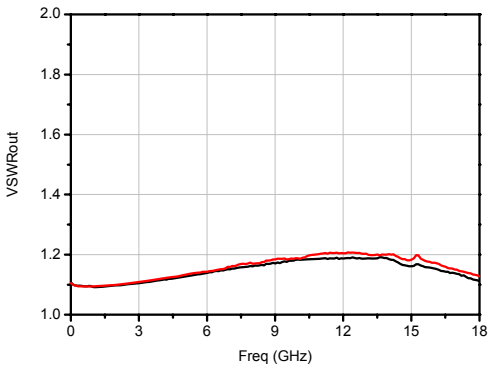
Truth Table(0：0V，1：+5V)

SW	RFC to RF1	RFC to RF2
0	ON	OFF
1	OFF	ON

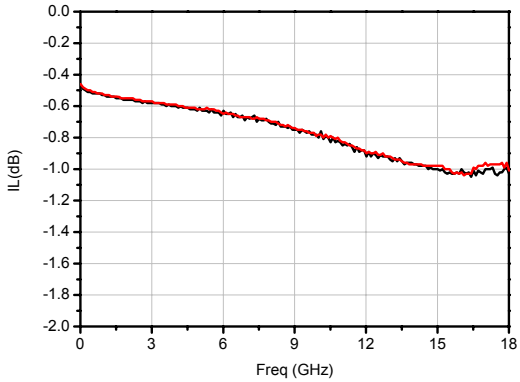
Input VSWR



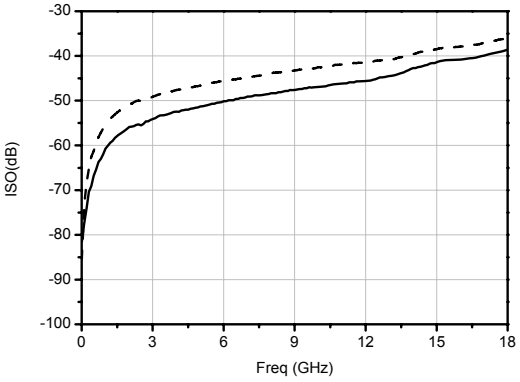
Output VSWR



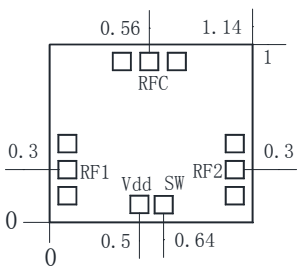
Insertion Loss



Isolation



Outline Drawing (mm)



Absolute Maximum Ratings

Supply Voltage	-5.5V	
RF Input Power	+27dBm	
Control Voltage	Low Level: 0~0.5V	High Level: 3.7~5V
Operating Temperature	-55℃～125℃	
Storage Temperature	-65℃～150℃	

Notes:

1. The chip should be stored in a dry and nitrogen environment, and used in a clean environment.
2. GaAs material is brittle, can not touch the surface of the chip, must be careful when using.
3. The chip is welding with conductive adhesive or alloy (alloy temperature should not exceed 300℃, and no more than 30 sec.), and should make it fully grounded.
4. The chip microwave port and substrate gap is not exceeding 0.05mm, with Φ25μm double gold wire bonding, suggested length of gold wire 250～400μm.
5. Chip microwave port without DC blocking capacitor.
6. The chip is sensitive to static electricity, and should be protected against static electricity during storage and use.