

**Features**

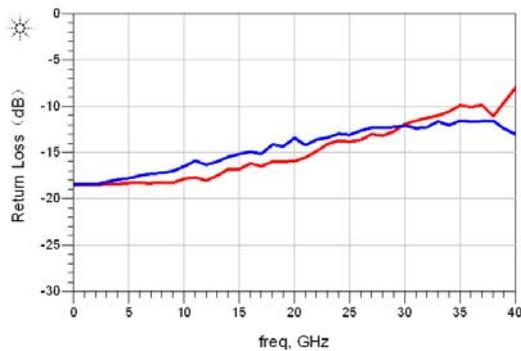
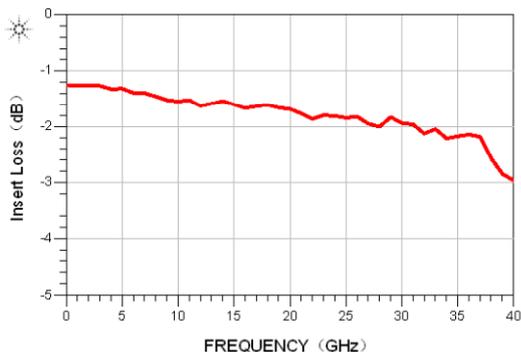
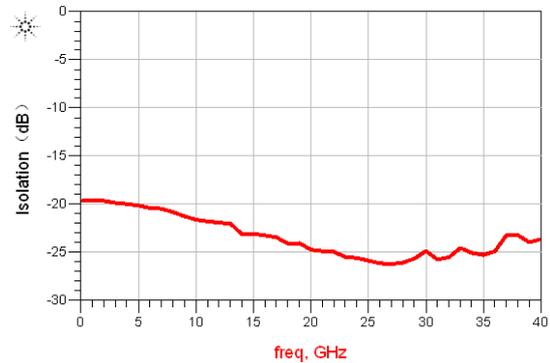
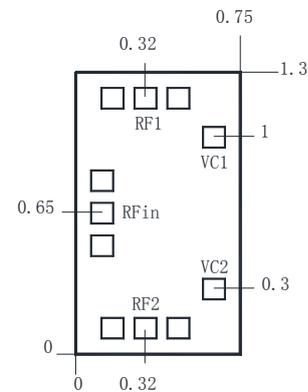
Freq: DC~40GHz  
 Insertion Loss: 2 dB  
 Isolation: 25 dB  
 Control Voltage: 0/-3V or 0/-5V  
 Chip Size: 1.3mm×0.75mm×0.1mm

**General Description**

The HG128KA is a reflective GaAs pHEMT SPDT switch chip. Covering DC to 40 GHz, this switch offers isolation of 25dB and insertion loss of 2 dB. This switch operates using a negative control voltage of 0/-3V or 0/-5V ,and requires no bias supply.

**Electrical Specifications( $T_A=25^\circ\text{C}$ )**

Parameter	Min.	Typ.	Max.
Frequency Range(GHz)	DC~40		
Input VSWR	-	1.4	-
Output VSWR	-	1.4	-
Insertion Loss(dB)	-	2	-
Isolation(dB)	-	25	-

**Return Loss**

**Insertion Loss**

**Isolation**

**Outline Drawing (mm)**

**Truth Table(0: 0V, 1: -5V/-3V)**

VC1	VC2	RFC to RF1	RFC to RF2
1	0	ON	OFF
0	1	OFF	ON

**Absolute Maximum Ratings**

RF Input Power	+27dBm
Operating Temperature	-55°C~125°C
Storage Temperature	-65°C~150°C

**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°C, 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  $\Phi 25\mu\text{m}$  double gold wire bonding, suggested length of gold wire 250~400 $\mu\text{m}$ .
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.