

**Features**

- Frequency: DC-40GHz
- Insertion Loss: 1.8dB
- Isolation: 52dB
- SWR at On State: 1.3/1.3@40GHz
- Input/Output: 50Ω
- Die Size: 1.6 x 1.0 x 0.1 mm

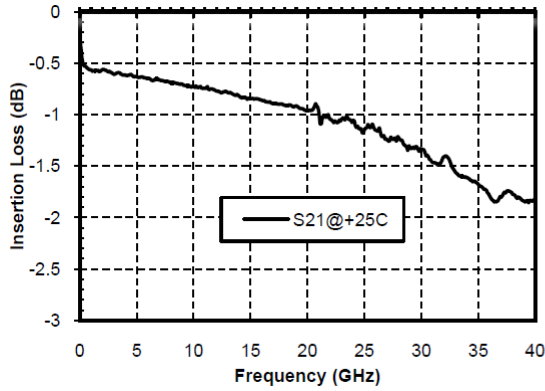
**Typical Applications**

- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

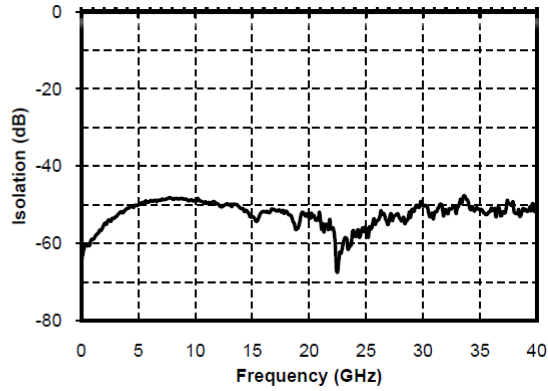
**Electrical Specifications**
**TA = +25°C**

Parameters	Min.	Typ.	Max.	Units
<b>Frequency</b>	<b>DC-40</b>			<b>GHz</b>
<b>Insertion Loss</b>	-	-	<b>1.8</b>	<b>dB</b>
<b>Isolation</b>	<b>48</b>	<b>52</b>	-	<b>dB</b>
<b>Input Return Loss at On State (ON)</b>	<b>17</b>	<b>21</b>	-	<b>dB</b>
<b>Output Return Loss at On State (Off)</b>	<b>16</b>	<b>20</b>	-	<b>dB</b>
<b>Output 1dB Compression (P1dB)</b>		<b>23</b>		<b>dBm</b>
<b>Switching Speed</b>		<b>10</b>		<b>ns</b>

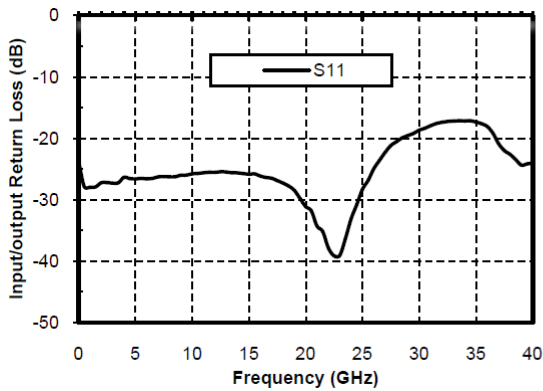
**Insertion Loss vs. Operating Frequency**



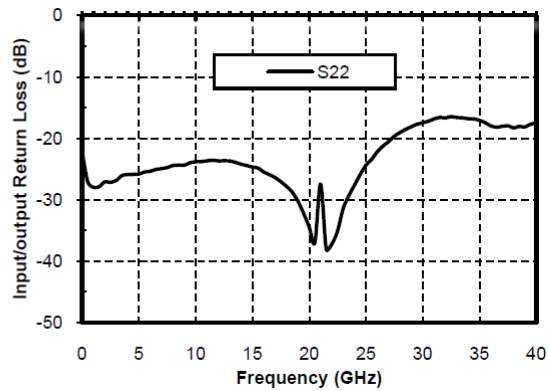
**Isolation vs. Operating Frequency**



**Input Return Loss at On State vs. Operating Frequency**

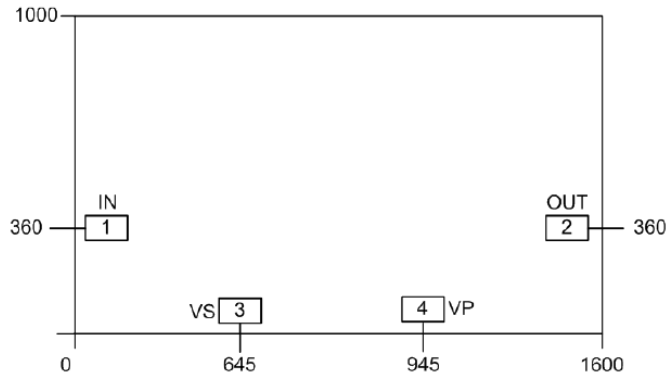


**Output Return Loss at On State vs. Operating Frequency**





**Outline Drawing:**  
All Dimensions in  $\mu\text{m}$



**Pad Description**

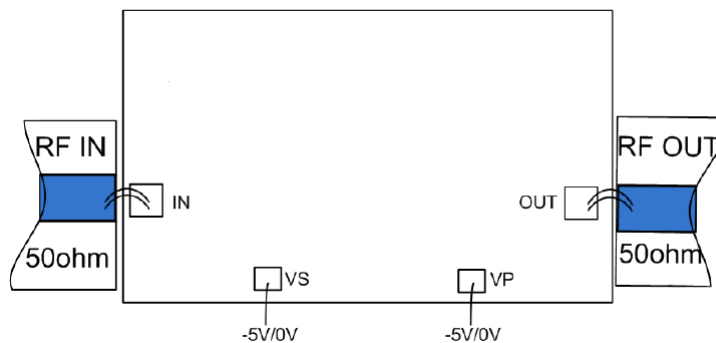
Pad	Function	Description
1	RF IN	Signal input terminal, connected to 50 $\Omega$ circuit; blocking capacitor not integrated internally.
2	RF OUT	Signal output terminal, connected to 50 $\Omega$ circuit; blocking capacitor not integrated internally
3, 4	Voltage Control	On/Off control.
Die bottom	GND	Die bottom must be connected to RF/DC ground.



### Truth Table

VS	VP	IN-OUT
0V	-5V	ON
-5V	0V	OFF

### Assembly Drawing



#### Notes:

1. Die thickness: 100um
2. Typical bond pad is 100\*100  $\mu\text{m}^2$
3. Bond pad metalization: Gold
4. Backside metalization: Gold
5. Backside of the die (GND)
6. No connection required for unlabeled bond pads

#### Maximum Ratings:

1. Control voltage: -8V-+0.5V
2. Maximum input power: +30dBm
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C