

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

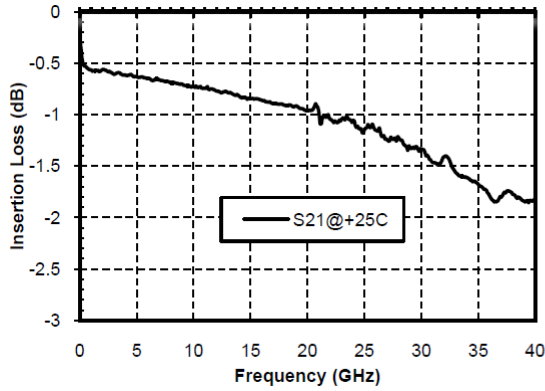
Typical Applications

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

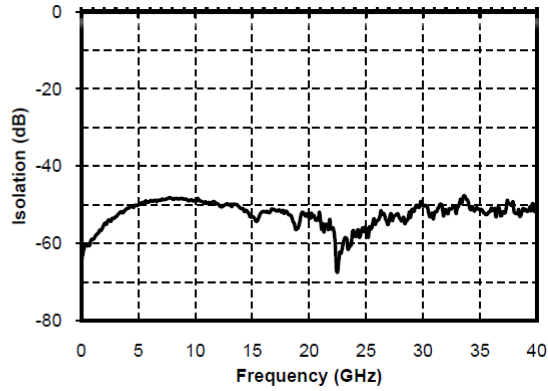
Electrical Specifications
TA = +25°C

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

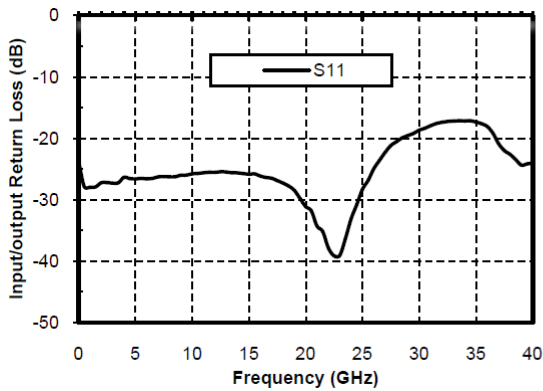
Insertion Loss vs. Operating Frequency



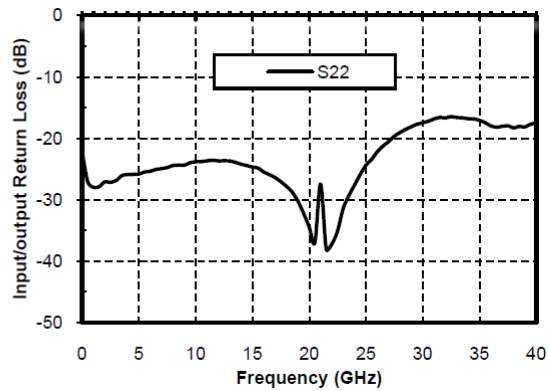
Isolation vs. Operating Frequency



Input Return Loss at On State vs. Operating Frequency

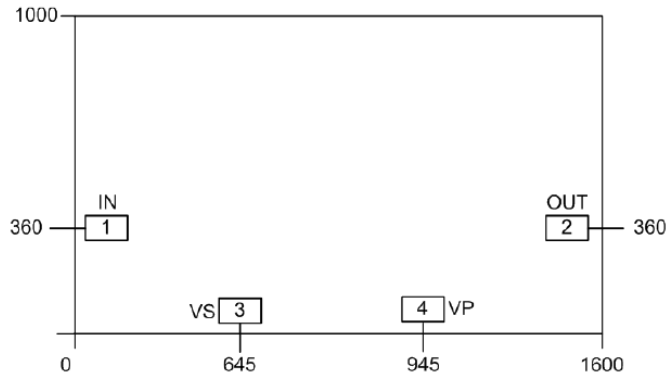


Output Return Loss at On State vs. Operating Frequency





Outline Drawing: All Dimensions in μm



Pad Description

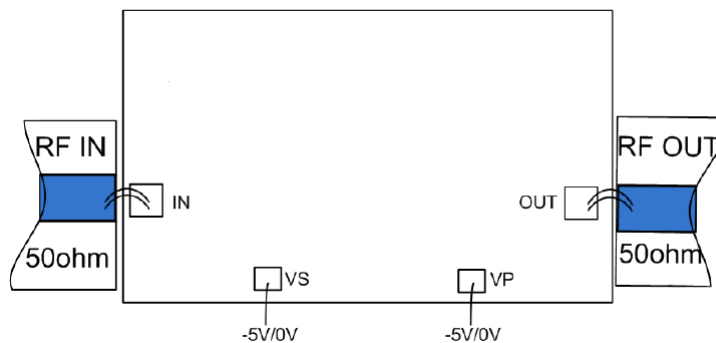
Pad	Function	Description
1	RF IN	Signal input terminal, connected to 50 Ω circuit; blocking capacitor not integrated internally.
2	RF OUT	Signal output terminal, connected to 50 Ω circuit; blocking capacitor not integrated internally
3, 4	Voltage Control	On/Off control.
Die bottom	GND	Die bottom must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