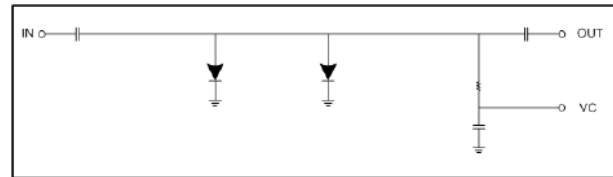


**Features**

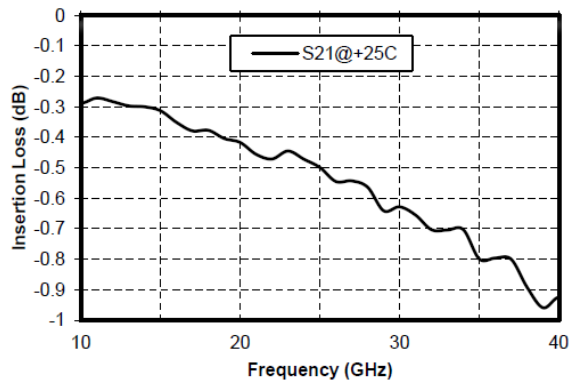
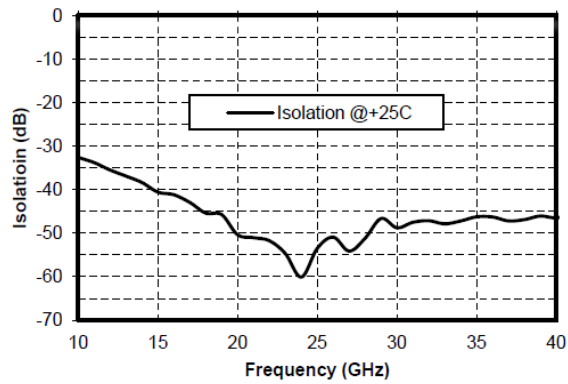
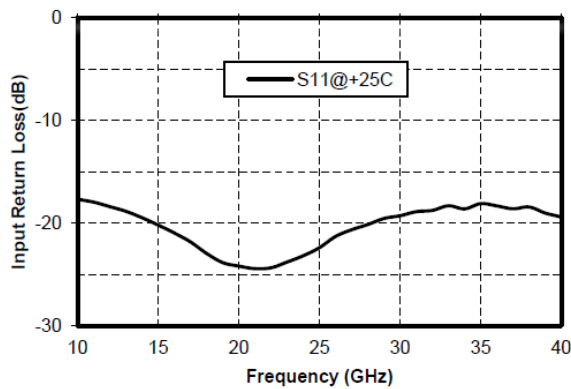
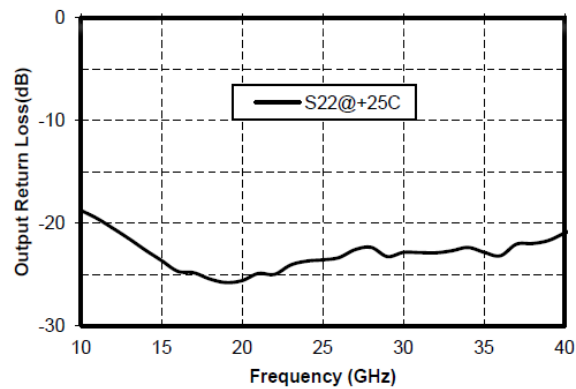
- Frequency: 10-40GHz
- Insertion Loss: 0.4dB typ.
- Isolation: 40dB typ.
- P-1dB: 30dBm
- Input/Output: 50Ω
- Die Size: 1.61x 0.8 x 0.1 mm

**Functional Block Diagram**

**Typical Applications**

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

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

Parameters	Min.	Typ.	Max.	Units
Frequency Range	10-40			GHz
Insertion Loss	-	0.6	1.0	dB
Isolation	32	46	-	dB
Input Return Loss	17	20	-	dB
Output Return Loss	18	22	-	dB
P-1dB	-	30	-	dBm
Switching Speed	-	20	-	ns

**Insertion Loss vs. Operating Frequency**

**Isolation vs. Operating Frequency**

**Input Return Loss vs. Operating Frequency**

**Output Return Loss vs. Operating Frequency**


### Typical Driver Connections

CONTROL LEVEL (DC CURRENT)	RF OUTPUT STATE
VC1	OUT1(J2)-IN(J1)
-5V	Low Loss
+10 mA	Isolation



### Outline Drawing

All Dimensions in  $\mu\text{m}$



### Pad Description

Pad	Function	Description
1	J1 (IN)	RF signal input port
2	J2 (OUT)	RF signal output port
3	VC	DC Bias
Die bottom	GND	Die bottom must be connected to RF/DC ground.

### 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. Maximum input voltage: 25V
2. Maximum input power: +34dBm CW
3. Operating temperature: -55°C to +85°C
4. Storage temperature: -65°C to +150°C