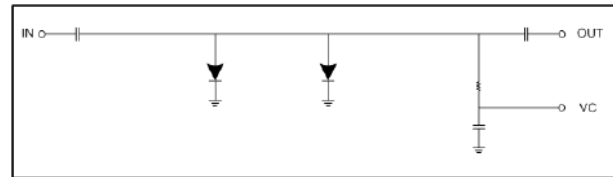


**Features**

- 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

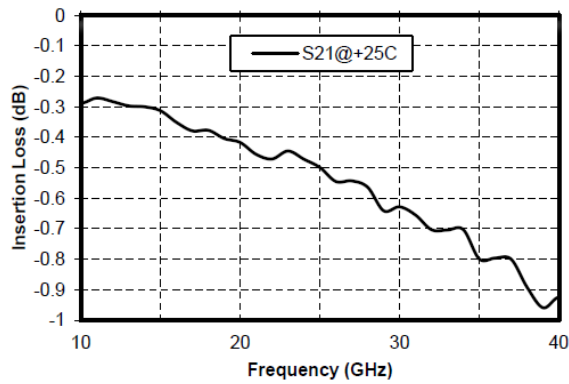
**Functional Block Diagram**

**Typical Applications**

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

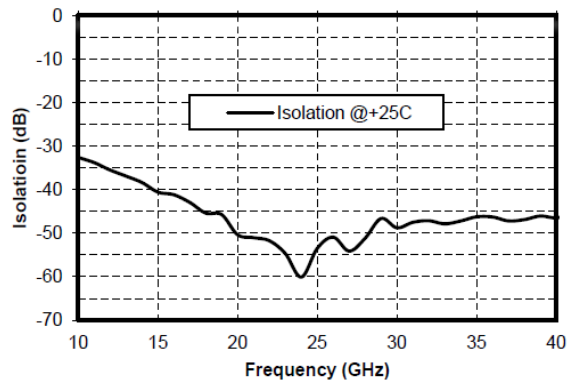
**Electrical Specifications**
**TA = +25°C**

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

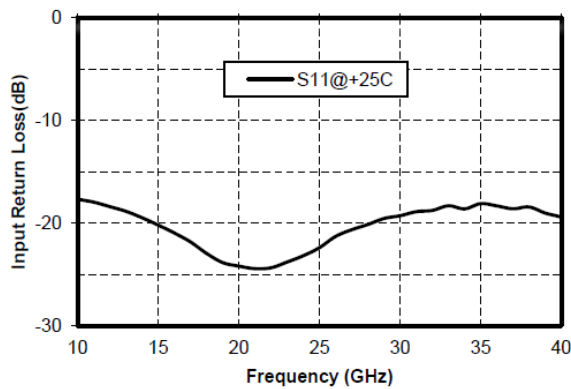
Insertion Loss vs. Operating Frequency



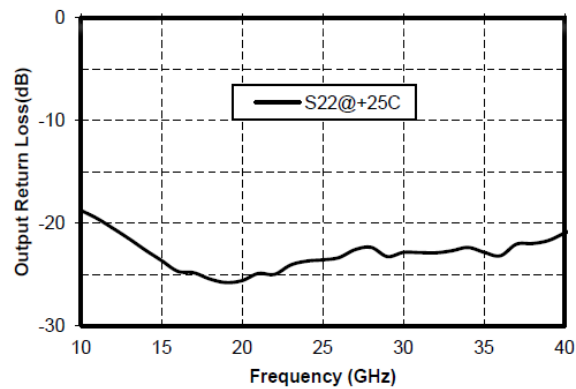
Isolation vs. Operating Frequency



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