

**Features**

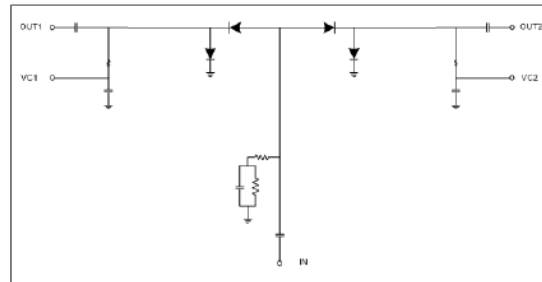
- Frequency: 10-40GHz
- Insertion Loss: 0.9dB typ.
- Isolation: 37dB typ.
- P-1dB: 23dBm
- Input/Output: 50Ω
- Die Size: 1.92x 1.16 x 0.1 mm

**Typical Applications**

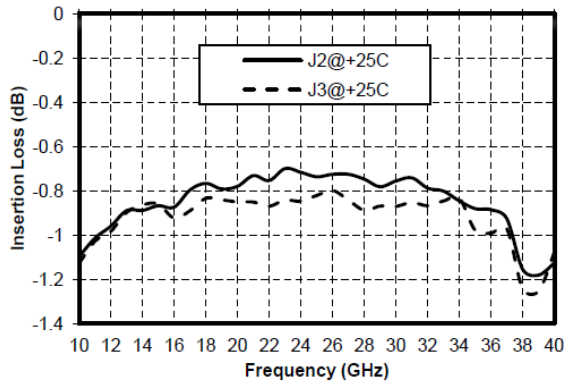
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

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

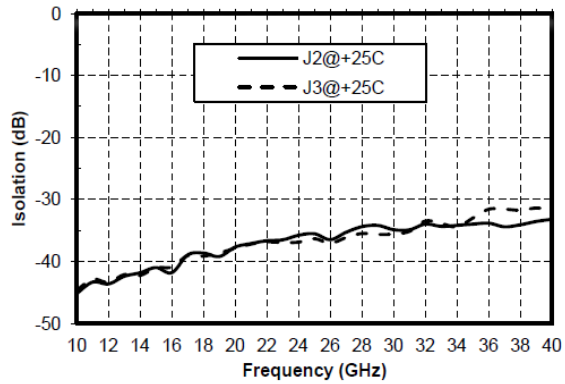
Parameters	Min.	Typ.	Max.	Units
Frequency Range	10-40			GHz
Insertion Loss	-	0.9	1.1	dB
Isolation	33	37	-	dB
Input Return Loss	12	18	-	dB
Output Return Loss	11	23	-	dB
P-1dB	-	23	-	dBm
Switching Speed	-	20	-	ns

**Functional Block Diagram**


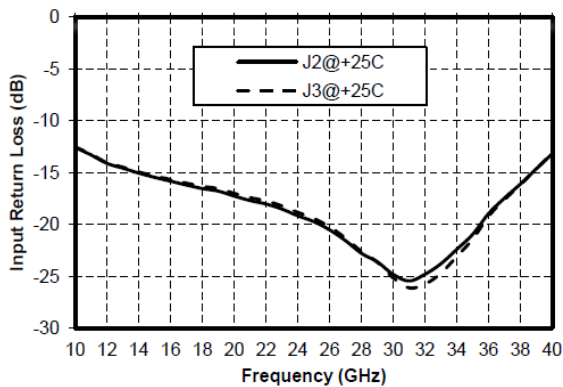
Insertion Loss vs. Operating Frequency



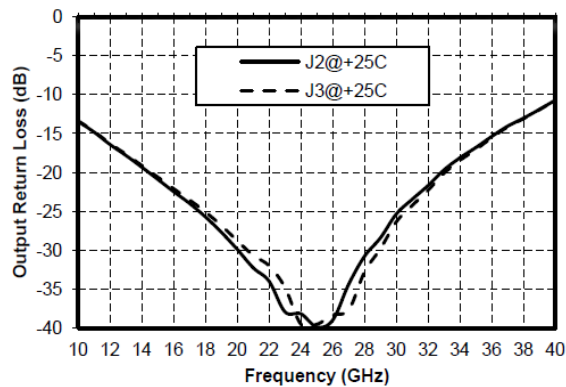
Isolation vs. Operating Frequency



Input Return Loss vs. Operating Frequency



Output Return Loss vs. Operating Frequency



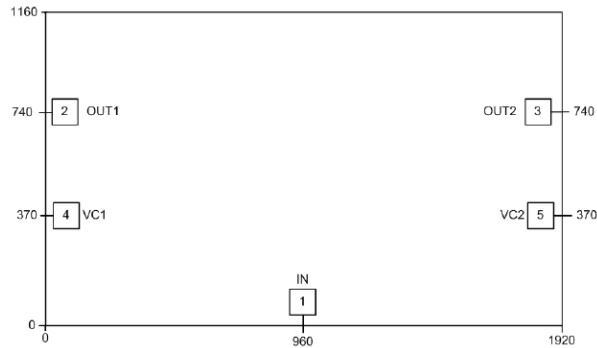
Typical Driver Connections

CONTROL LEVEL (DC CURRENT)		RF OUTPUT STATE	
VC1	VC2	OUT1(J2)-IN(J1)	OUT2(J3)-IN(J1)
-10mA	+10mA	Low Loss	Isolation
+10mA	-10mA	Isolation	Low Loss



### Outline Drawing

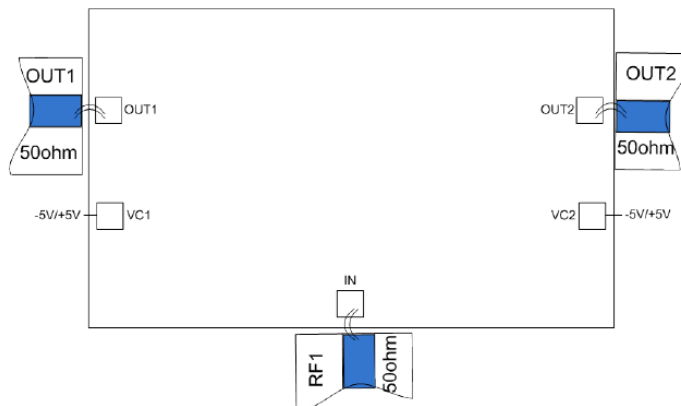
All Dimensions in  $\mu\text{m}$



### Pad Description

Pad	Function	Description
1	IN (J1)	RF signal input port
2,3	OUT2 (J2), OUT3 (J3)	RF signal output port
4,5	VC1, VC2	Control port
Die bottom	GND	Die bottom must be connected to RF/DC ground.

### Assembly Drawing



#### Notes:

1. Die thickness: 100 $\mu\text{m}$
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: +30dBm CW
3. Operating temperature: -55 $^{\circ}\text{C}$  to +85 $^{\circ}\text{C}$
4. Storage temperature: -65 $^{\circ}\text{C}$  to +150 $^{\circ}\text{C}$