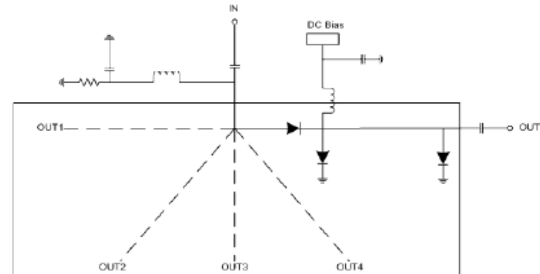
Features

- Frequency: 10-40GHz
- Insertion Loss: 1.5dB typ.
- Isolation: 46dB typ.
- P-1dB: 25dBm
- Input/Output: 50Ω
- Die Size: 2.12x 1.52x 0.1 mm

Functional Block Diagram



Typical Applications

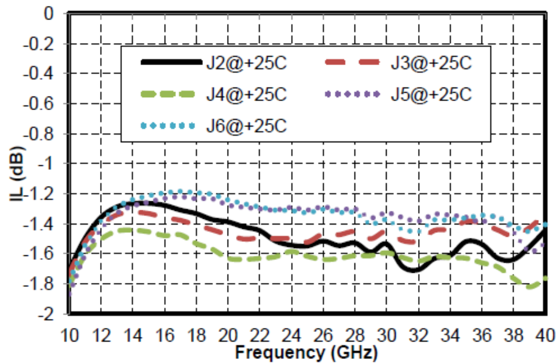
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

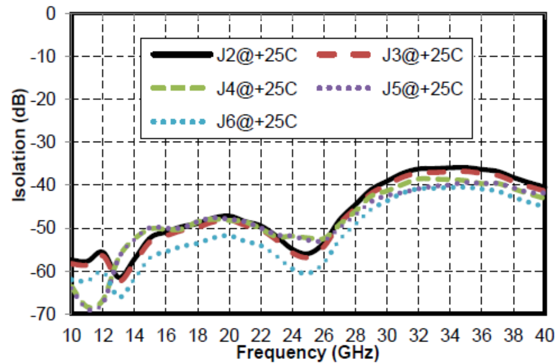
TA = +25°C

Parameters	Min.	Typ.	Max.	Units
Frequency Range		10-40		GHz
Insertion Loss	-	1.5	1.7	dB
Isolation	36	46	-	dB
Input Return Loss	11	18	-	dB
Output Return Loss	11	18	-	dB
P-1dB	-	25	-	dBm
Switching Speed	-	30	-	ns

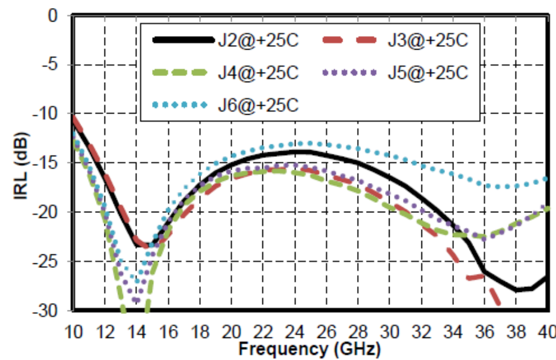
Insertion Loss vs. Operating Frequency



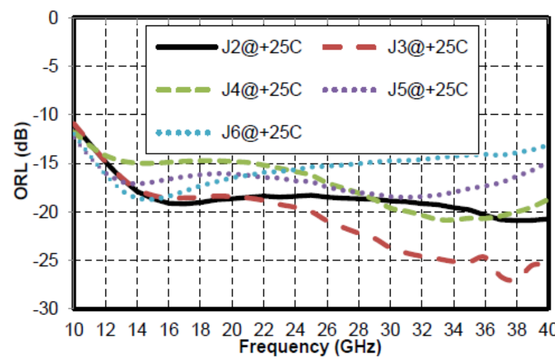
Isolation vs. Operating Frerquency



Input Return Loss vs. Operating Frequency



Output Return Loss vs. Operating Frequency

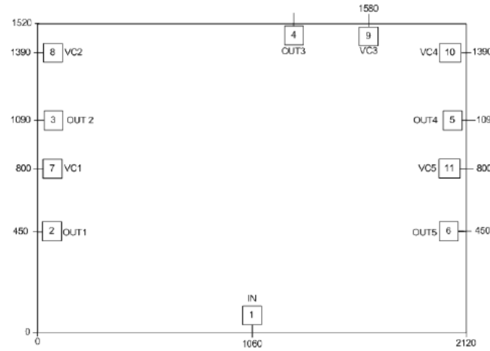


Typical Driver Connections

Control Level (mA)					RF Output State				
VC1	VC2	VC3	VC4	VC5	J2-J1	J3-J1	J4-J1	J5-J1	J6-J1
-10	10	10	10	10	Low Loss	Isolation	Isolation	Isolation	Isolation
10	-10	10	10	10	Isolation	Low Loss	Isolation	Isolation	Isolation
10	10	-10	10	10	Isolation	Isolation	Low Loss	Isolation	Isolation
10	10	10	-10	10	Isolation	Isolation	Isolation	Low Loss	Isolation
10	10	10	10	-10	Isolation	Isolation	Isolation	Isolation	Low Loss

Outline Drawing

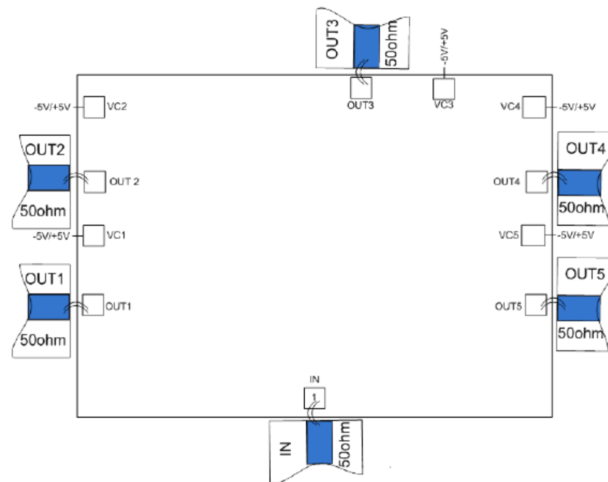
All Dimensions in µm



Pad Description

Pad	Function	Description
1	IN(J1)	RF signal input port
2,3,4,5,6	OUT1(J2), OUT2(J3), OUT3(J4), OUT4(J5), OUT5(J6)	RF signal output port
7,8,9,10,11	VC1,VC2,VC3,VC4,VC5	Control Port
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 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. Maximum input voltage: 25V
2. Maximum input power: +31dBm CW
3. Operating temperature: -55℃ to +85℃
4. Storage temperature: -65℃ to +150℃