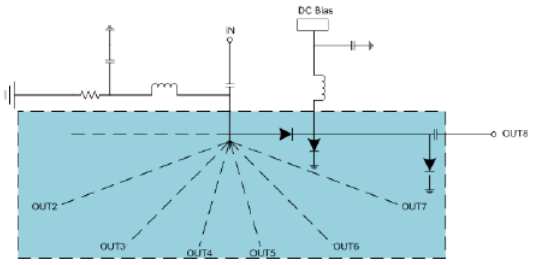
Features

- Frequency: 10-40GHz
- Insertion Loss: 1.6dB typ.
- Isolation: 47dB typ.
- P-1dB: 27dBm
- Input/Output: 50Ω
- Die Size: 2.12x 1.57x 0.1 mm

Functional Block Diagram



Typical Applications

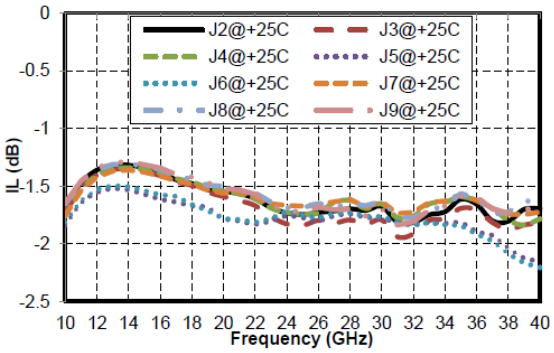
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Electrical Specifications

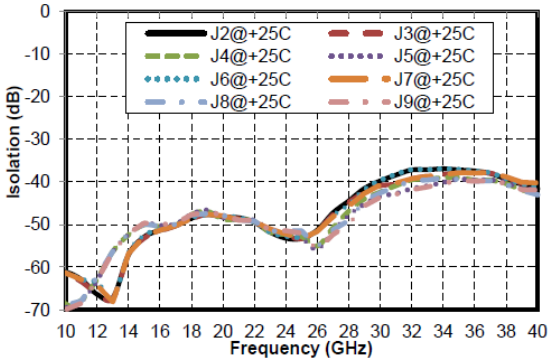
TA = +25ºC

Parameters	Min.	Typ.	Max.	Units
Frequency Range		10-40		GHz
Insertion Loss	-	1.6	1.8	dB
Isolation	40	47	-	dB
Input Return Loss	12	16	-	dB
Output Return Loss	12	15	-	dB
P-1dB	-	27	-	dBm
Switching Speed	-	30	-	ns

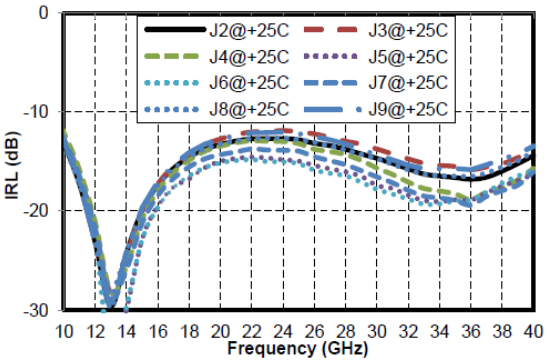
Insertion Loss vs. Operating Frequency



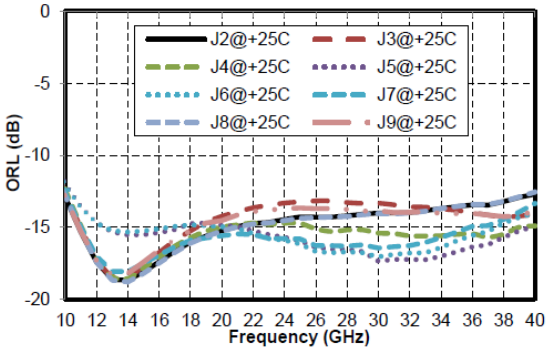
Isolation vs. Operating Frerquency



Input Return Loss vs. Operating Frequency



Output Return Loss vs. Operating Frequency

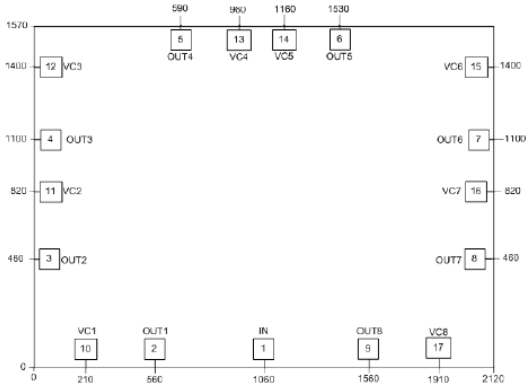


Typical Driver Connections

Control Level (mA)								RF Output State							
VC1	VC2	VC3	VC4	VC5	VC6	VC7	VC8	J2-J1	J3-J1	J4-J1	J5-J1	J6-J1	J7-J1	J8-J1	J9-J1
-10	10	10	10	10	10	10	10	Low Loss	Isolation	Isolation	Isolation	Isolation	Isolation	Isolation	Isolation
10	-10	10	10	10	10	10	10	Isolation	Low Loss	Isolation	Isolation	Isolation	Isolation	Isolation	Isolation
10	10	-10	10	10	10	10	10	Isolation	Isolation	Low Loss	Isolation	Isolation	Isolation	Isolation	Isolation
10	10	10	-10	10	10	10	10	Isolation	Isolation	Isolation	Low Loss	Isolation	Isolation	Isolation	Isolation
10	10	10	10	-10	10	10	10	Isolation	Isolation	Isolation	Isolation	Low Loss	Isolation	Isolation	Isolation
10	10	10	10	10	-10	10	10	Isolation	Isolation	Isolation	Isolation	Isolation	Low Loss	Isolation	Isolation
10	10	10	10	10	10	-10	10	Isolation	Isolation	Isolation	Isolation	Isolation	Isolation	Low Loss	Isolation
10	10	10	10	10	10	10	-10	Isolation	Isolation	Isolation	Isolation	Isolation	Isolation	Isolation	Low Loss

Outline Drawing

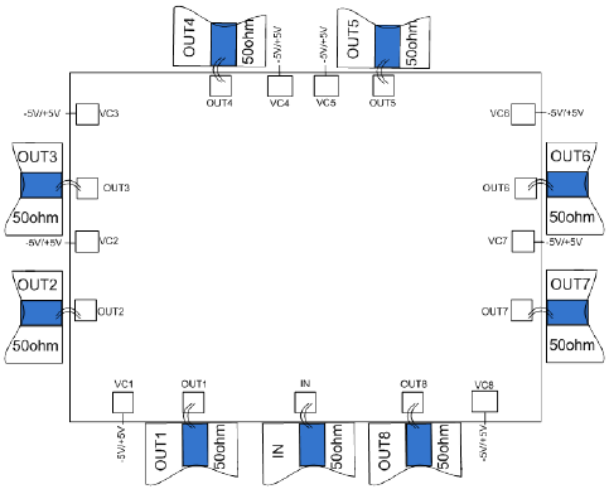
All Dimensions in μm



Pad Description

Pad	Function	Description
1	IN(J1)	RF signal input port
2,3,4,5,6,7,8,9	OUT1(J2), OUT2(J3), OUT3(J4), OUT4(J5), OUT5(J6)), OUT6(J7)), OUT7(J8), OUT8(J9)	RF signal output port
10,11,12,13,14, 15,16,17	VC1,VC2,VC3,VC4,VC5,VC6,VC7,VC8	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 μm²
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℃