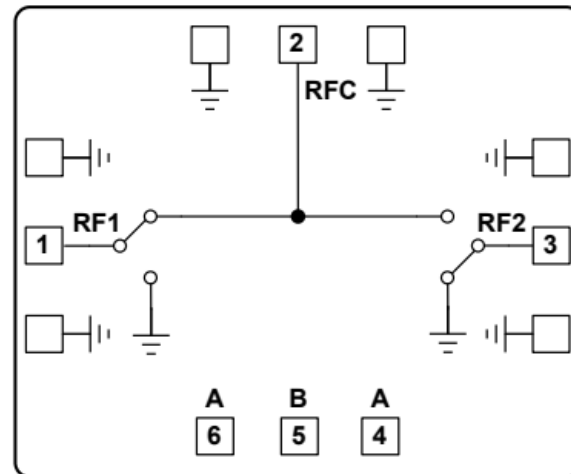


Features

- SPDT Reflective design
- Isolation: 30dB
- Insertion Loss: 0.5dB
- Input P-0.3: 48dBm@ 0.1GHz
- 46.5dBm@ 3GHz
- Switching Time: 30ns
- Input/Output: 50 Ohm matched
- Die Size: 2.00x1.10x 0.08 mm

Functional Block Diagram

Typical Applications

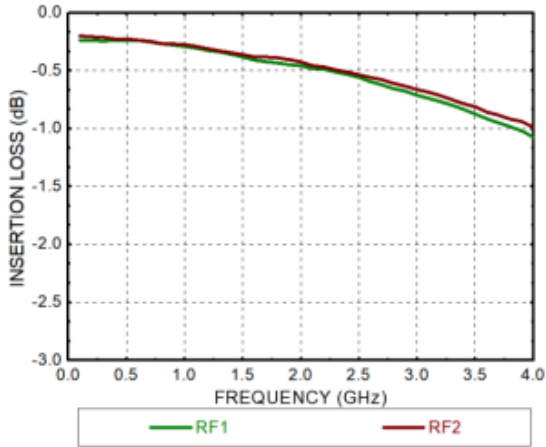
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Electrical Specifications
TA = +25°C, VCTL=0/-40V

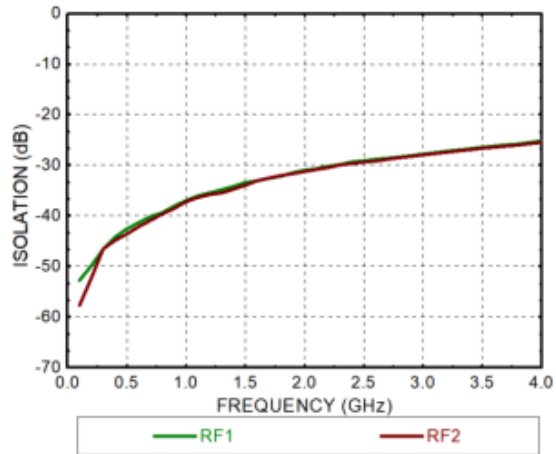
Parameters	Min.	Typ.	Max.	Units
Frequency		0.1-3		GHz
Insertion Loss		0.5		dB
On-state Return Loss(RFC)		15		dB
On-state Return Loss(RF1/RF2)		15		dB
Isolation		30		dB
Input power 0.3dB Compression@0.1GHz		48		dBm
Input power 0.3dB Compression@3GHz		46.5		dBm
Switching Time		30		ns



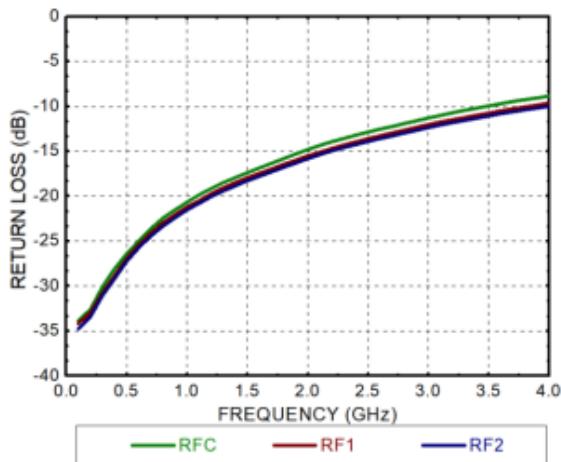
Insertion Loss



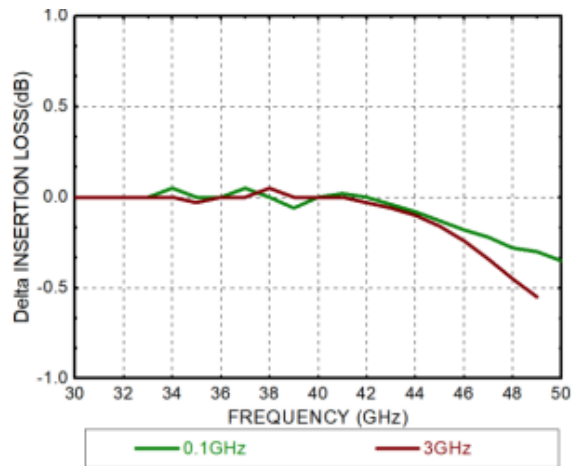
Isolation



Return Loss (ON State)

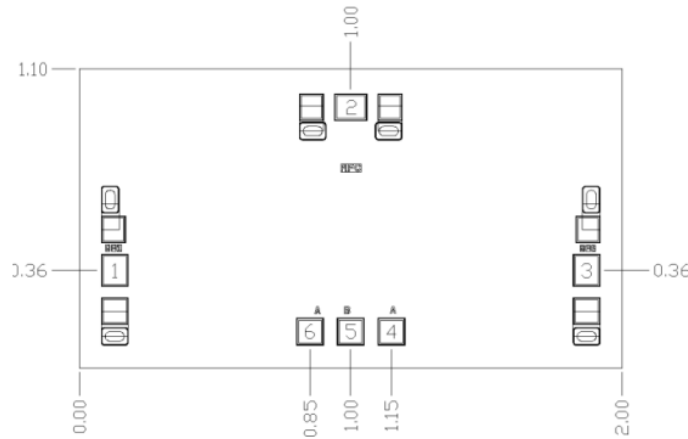


Insertion Loss Compression vs Input Power (Normalized)





Outline Drawing:
All Dimensions in mm



Pad Description

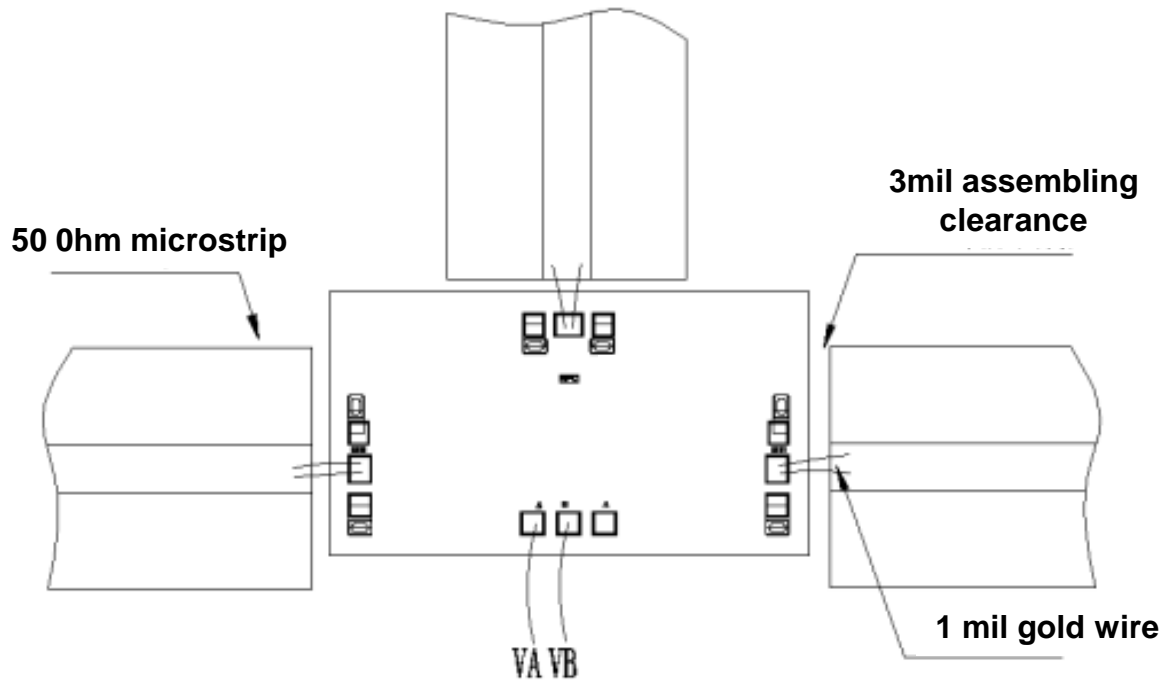
PAD	Function	Description
2	RFC	The pad is DC coupling and matched to 50Ω. If RF voltage is not 0V, then blocking capacitor is required externally.
1,3	RF1,RF2	The pad is DC coupling and matched to 50Ω. If RF voltage is not 0V, then blocking capacitor is required externally.
4,6	A	When A=-0V, B=-40V, then RF1 is "ON" state, RF2 is "OFF" state; When A=-40V, B=0V, then RF1 is "OFF" state, RF2 is "ON" state.
5	B	
Die Bottom	GND	Die bottom must be connected to RF/DC ground.

True Table

Function	A	B
RFC-RF1	0V	-40V
RFC-RF2	-40V	0V



Assembly Drawing



Notes:

1. Die thickness: 80um
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. Control voltage: -50V
2. Control current: $\pm 2\text{mA}$
3. Maximum input power @0.1GHz: 50dBm
(Continuous wave, 50 Ω , withstands for 5 minutes)
4. Maximum input power @3GHz: 49dBm
(Continuous wave, 50 Ω , withstands for 5 minutes)
5. Storage temperature: -65°C to +150°C
6. Operating temperature: -55°C to +85°C