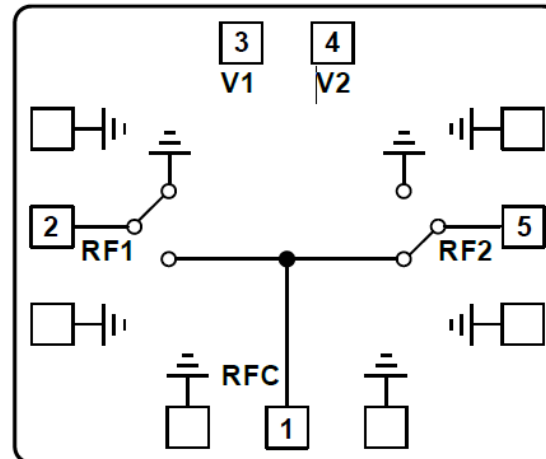


Features

- Isolation: 42dB @ 12GHz
- Insertion Loss: 1.3dB @ 12GHz
- Reflective design
- Input/Output: 50 Ohm
- Die Size: 1.5x0.7x 0.1 mm

Typical Applications

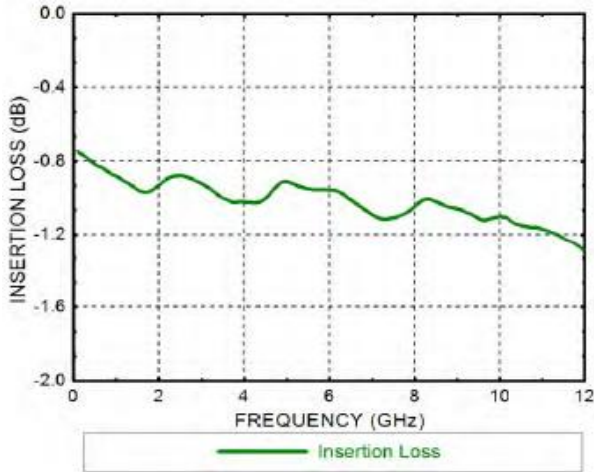
- TTL compatible driver included
- Fast Switching Speed
- Low Insertion Loss and High Isolation
- Customization available upon request

Functional Block Diagram

Electrical Specifications
TA = +25°C, Vctl = 0/-5V

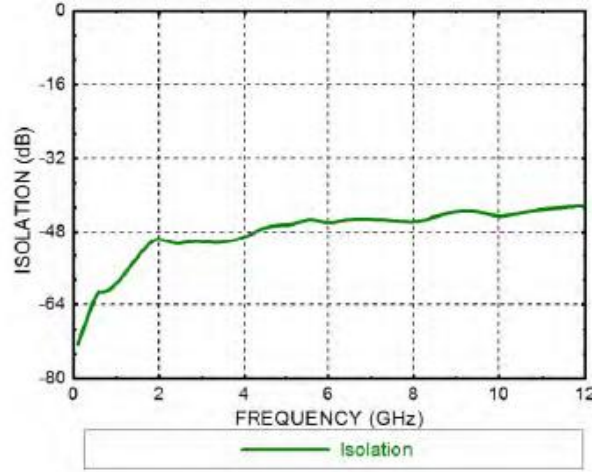
| Parameters | Min. | Typ. | Max. | Units |
|-------------------------------|--------------|-----------|------|------------|
| Frequency | DC-12 | | | GHz |
| Insertion Loss | | 1 | | dB |
| Isolation | | 45 | | dB |
| Return Loss (ON State) | | 20 | | dB |
| Input 1dB Compression | | 25 | | dBm |
| Switching Speed | | 15 | | ns |



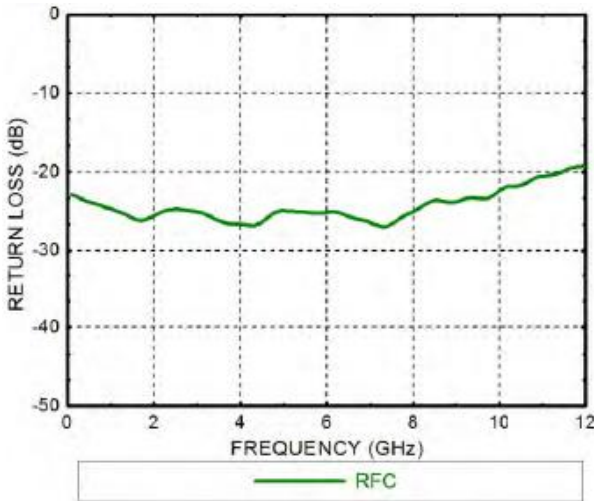
Insertion Loss



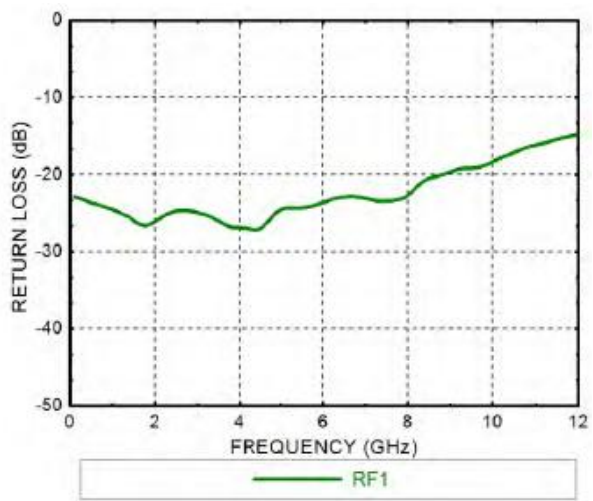
Isolation



RFC Return Loss(ON State)



RF1 Return Loss(ON State)

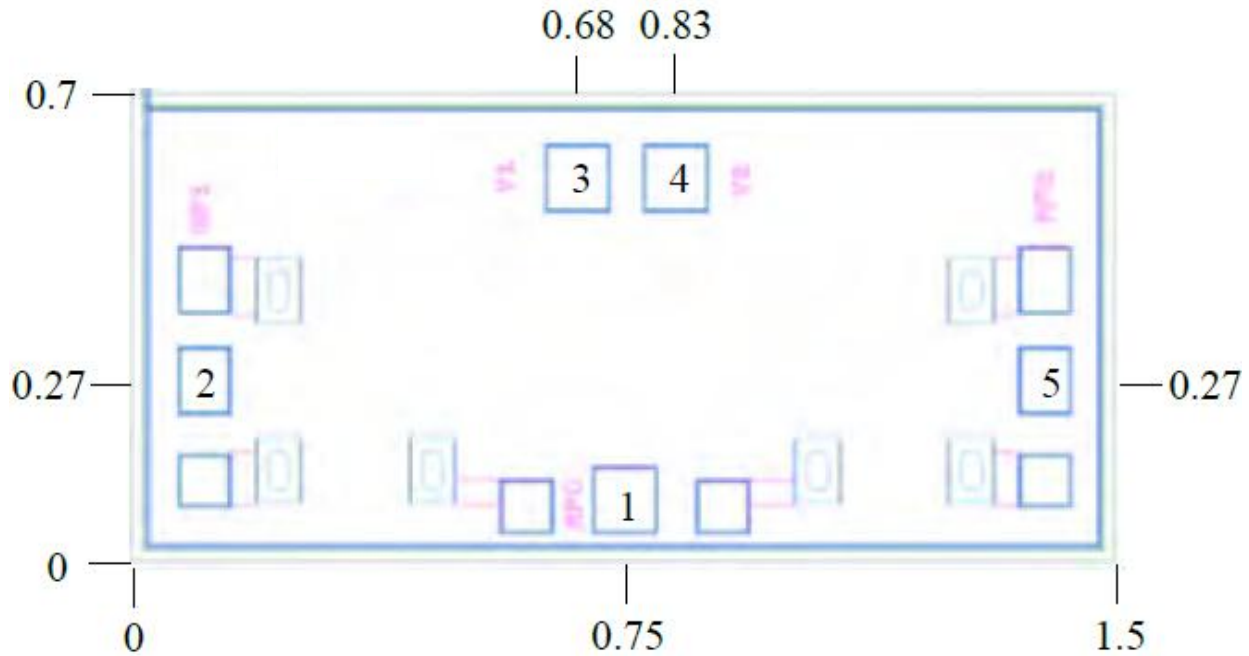




GaAs pHEMT MMIC SPDT
Reflective Single-pole
Double-throw Switch
DC-12GHz

Outline Drawing:

All Dimensions in mm



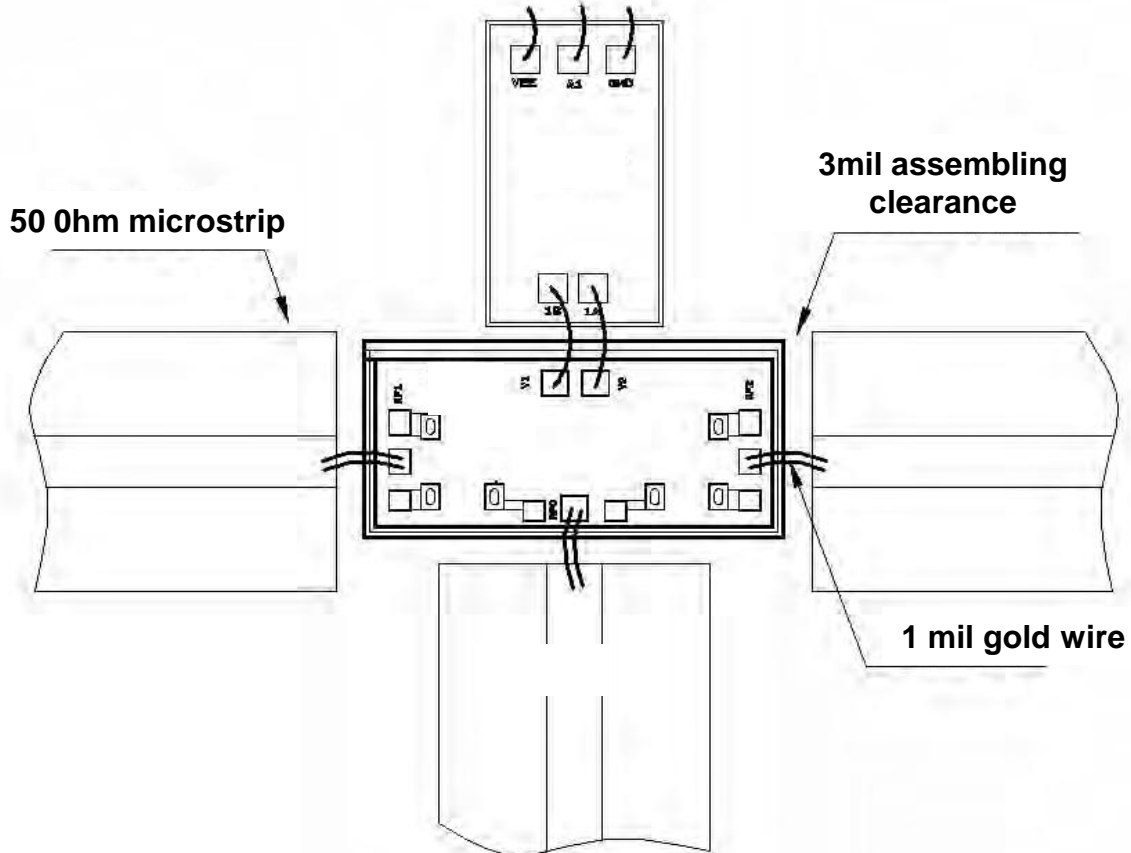
Pad Description

| PAD | Function | Description |
|------------|----------|--|
| 1 | RFC | DC coupling 50Ω Impedance. IF RF voltage is not 0V, blocking capacitor is required externally. |
| 2, 5 | RF1, RF2 | DC coupling 50Ω Impedance. IF RF voltage is not 0V, blocking capacitor is required externally. |
| 3, 4 | V1, V2 | When V1=-5V and V2=0V, then RF1 is "ON" state and RF2 is "OFF" state. When V1=0V and V2=-5V, then RF1 is "OFF" state and RF2 is "ON" state. |
| Die Bottom | GND | Die bottom must be connected to RF/DC ground |



GaAs pHEMT MMIC SPDT
Reflective Single-pole
Double-throw Switch
DC-12GHz

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. RF input power: +27dBm
2. Storage temperature: -65°C to +175°C
3. Operating temperature: -55°C to +85°C