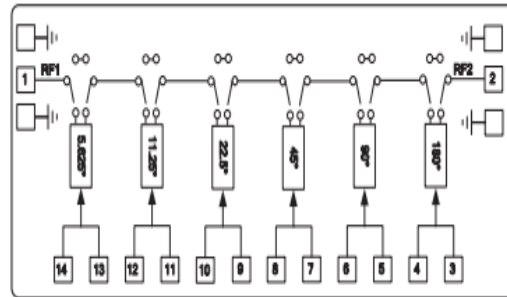


Features

- Phase Shift Range: 360 °
- Minimum phase shift: 5.625 °
- Phase Shift Accuracy RMS: 3°
- Insertion Loss: 10dB
- Phase-shifting Amplitude Modulation: ±0.5dB
- Impedance: 50Ω
- Die Size: 2.5 x 2.5 x 0.1 mm

Typical Applications

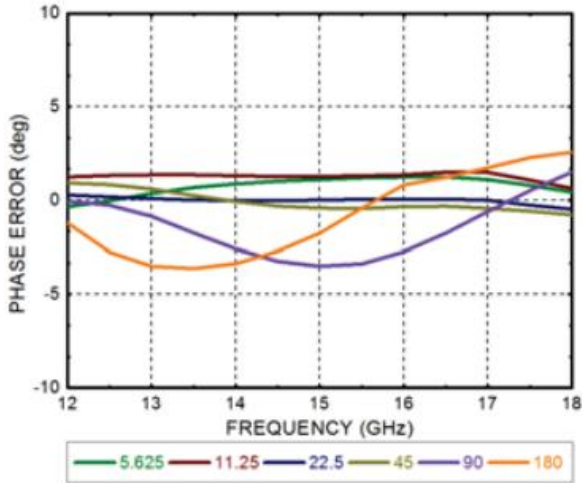
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Functional Block Diagram

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

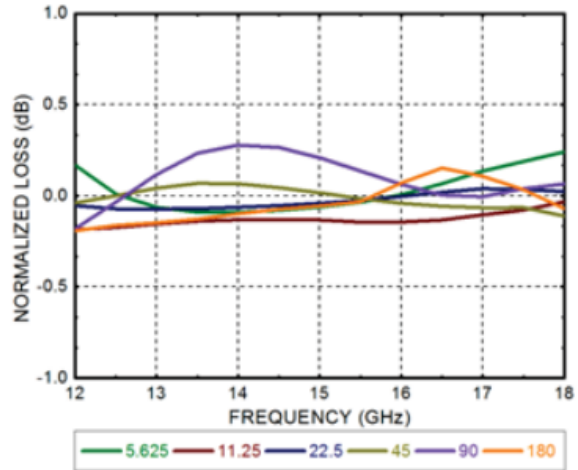
Parameters	Min.	Typ.	Max.	Units
Frequency	12-18			GHz
Insertion Loss		10		dB
Phase Shift Accuracy RMS		3		°
Phase-shifting Amplitude Modulation		±0.5		dB
Return Loss		15		dB
Input 1dB Compression (P1dB)		24		dBm
Switching Speed		30		ns



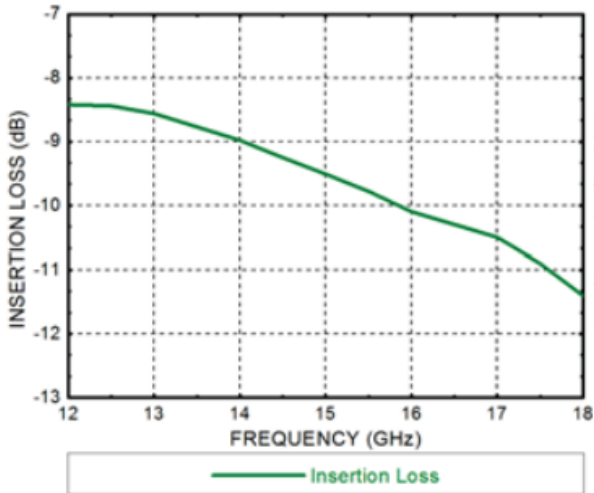
Phase Shift Accuracy (Basic State)



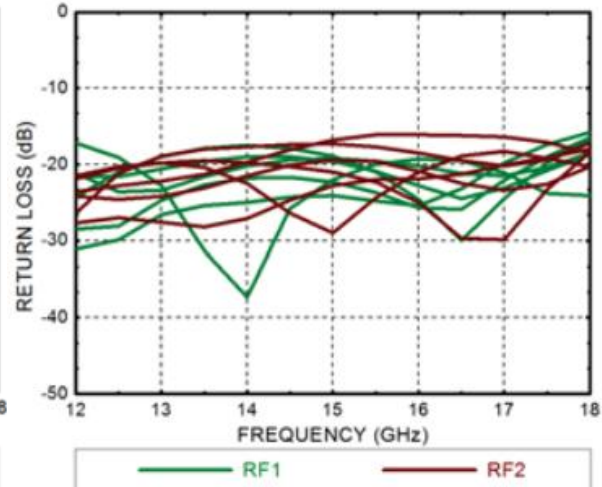
Amplitude Modulation (Basic State)



Insertion Loss

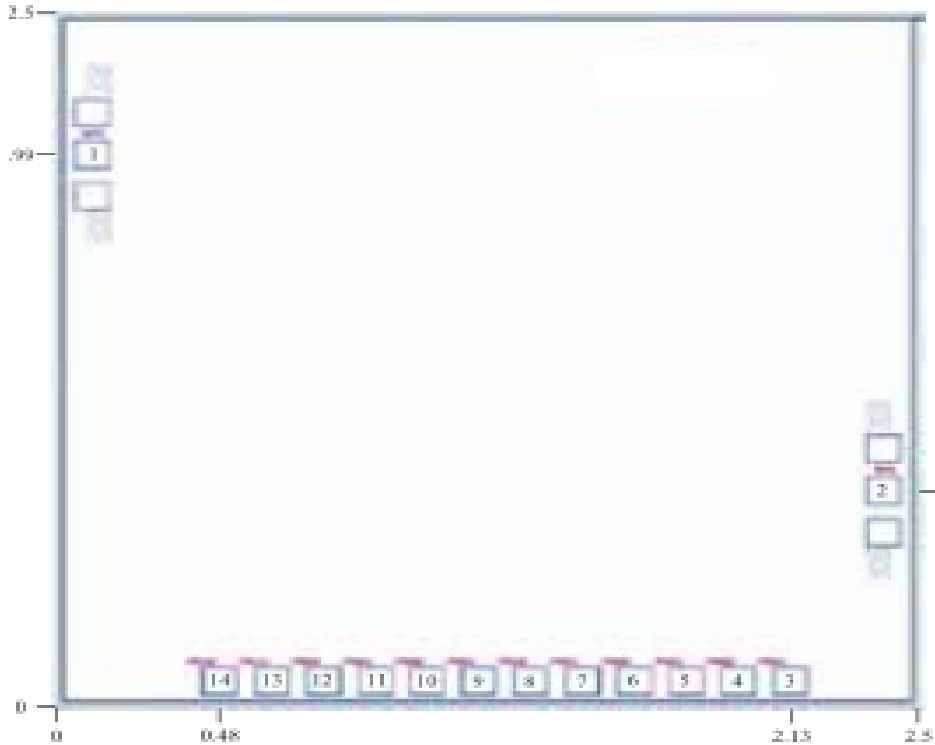


Return Loss (Basic State)





Outline Drawing: All Dimensions in mm

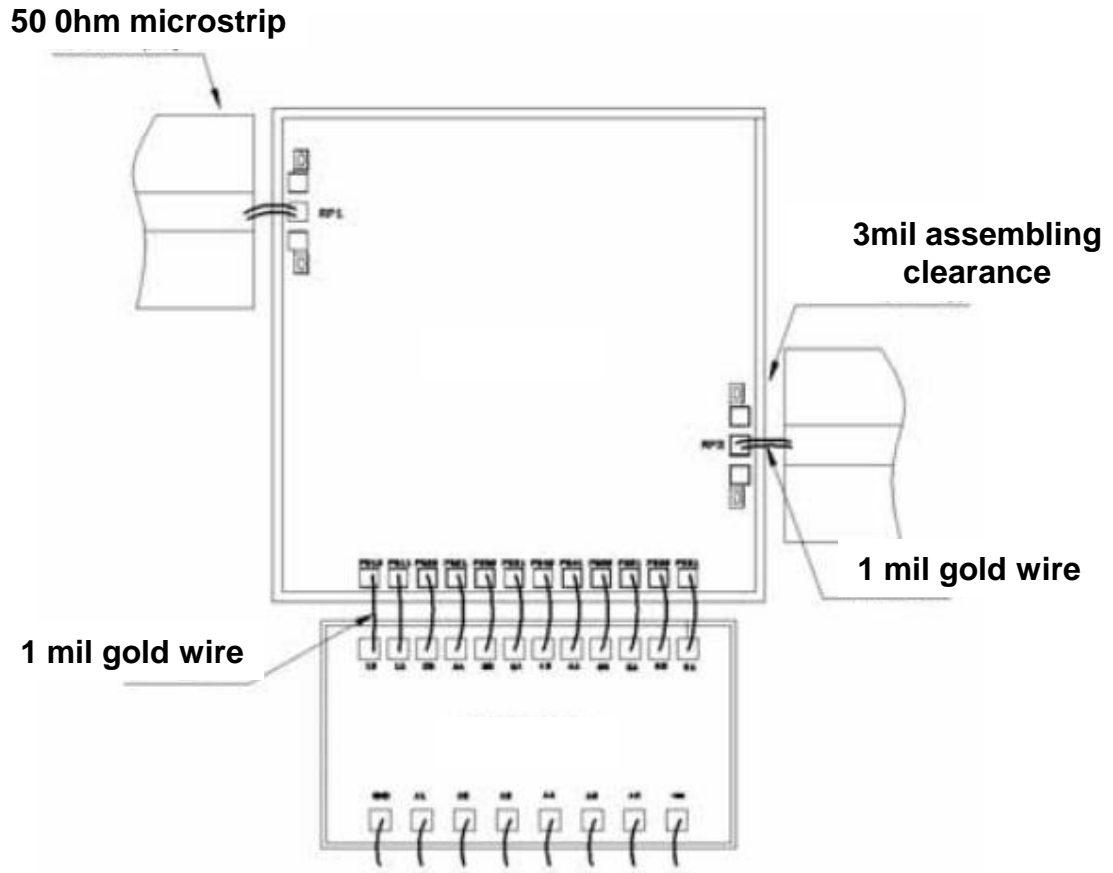


Pad Description

PAD	Function	Description
1	RF1	This pad is RF port and matches to 50Ω Impedance
2	RF2	This pad is RF port and matches to 50Ω Impedance
3,4	180° Control	-5V, 0V is 180 ° "OFF"; 0V, -5V is 180 ° "ON"
5,6	90° Control	-5V, 0V is 90 ° "OFF";0V, -5V is 90 ° "ON"
7,8	45°Control	-5V, 0V is 45 ° "OFF";0V,-5V is 45 ° "ON"
9,10	22.5° Control	-5V, 0V is 22.5 ° "OFF";0V,-5V is 22.5 ° "ON"
11,12	11.25° Control	-5V, 0V is 11.25 ° "OFF";0V,-5V is 11.25 ° "ON"
13,14	5.625° Control	-5V, 0V is 5.625 ° "OFF";0V,-5V is 5.625° "ON"
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. RF input power: +24dBm
2. Storage temperature: -65°C to +175°C
3. Operating temperature: -55°C to +85°C