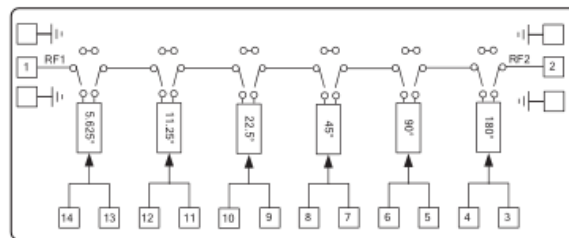


Features

- Phase Shift Range: 360 °
- Minimum Phase Shift: 5.625 °
- Phase Shift Accuracy RMS: 2.5°
- Insertion Loss: 7dB
- Phase-shifting Amplitude Modulation: ±0.6dB
- Impedance: 50Ω
- Die Size: 2.5 x 2 x 0.1 mm

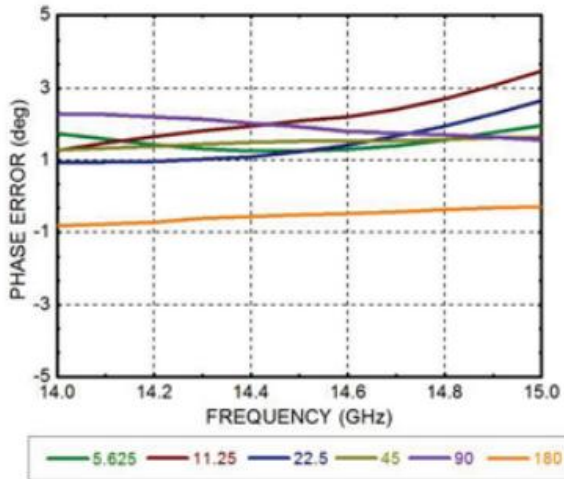
Typical Applications

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

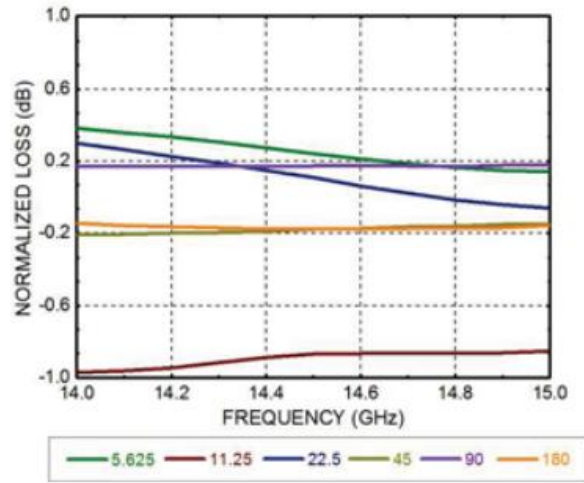
Functional Block Diagram

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

Parameters	Min.	Typ.	Max.	Units
Frequency	14-15			GHz
Insertion Loss		7		dB
Phase Shift Accuracy RMS		2.5		°
Phase-shifting Amplitude Modulation		±0.6		dB
Return Loss		10		dB
Input 1dB Compression (P1dB)		24		dBm
Switching Speed		30		ns

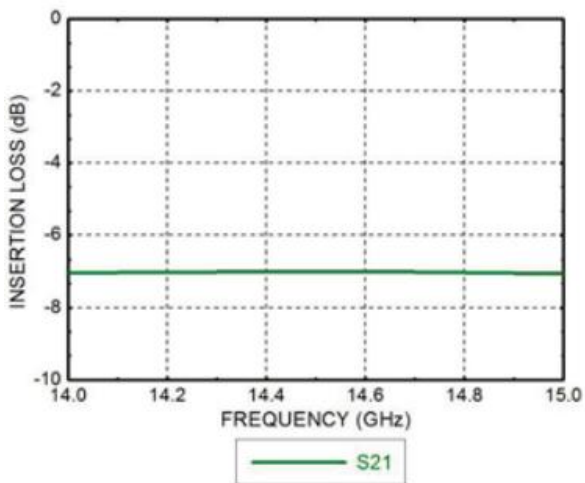
Phase Shift Accuracy(Basic State)



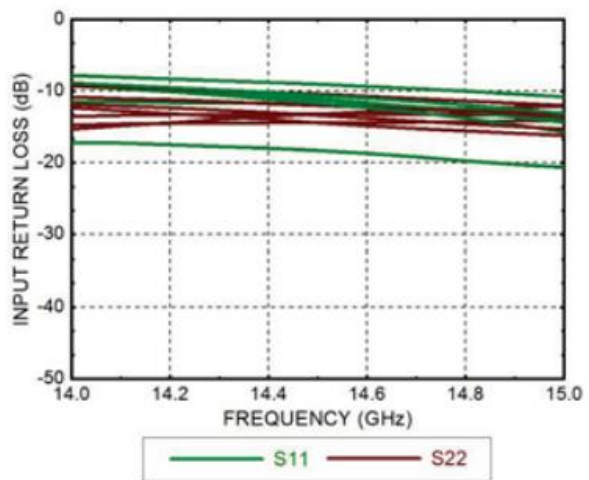
Amplitude Modulation(Basic State)



Insertion Loss



Return Loss(Basic State)





Outline Drawing:

All Dimensions in mm

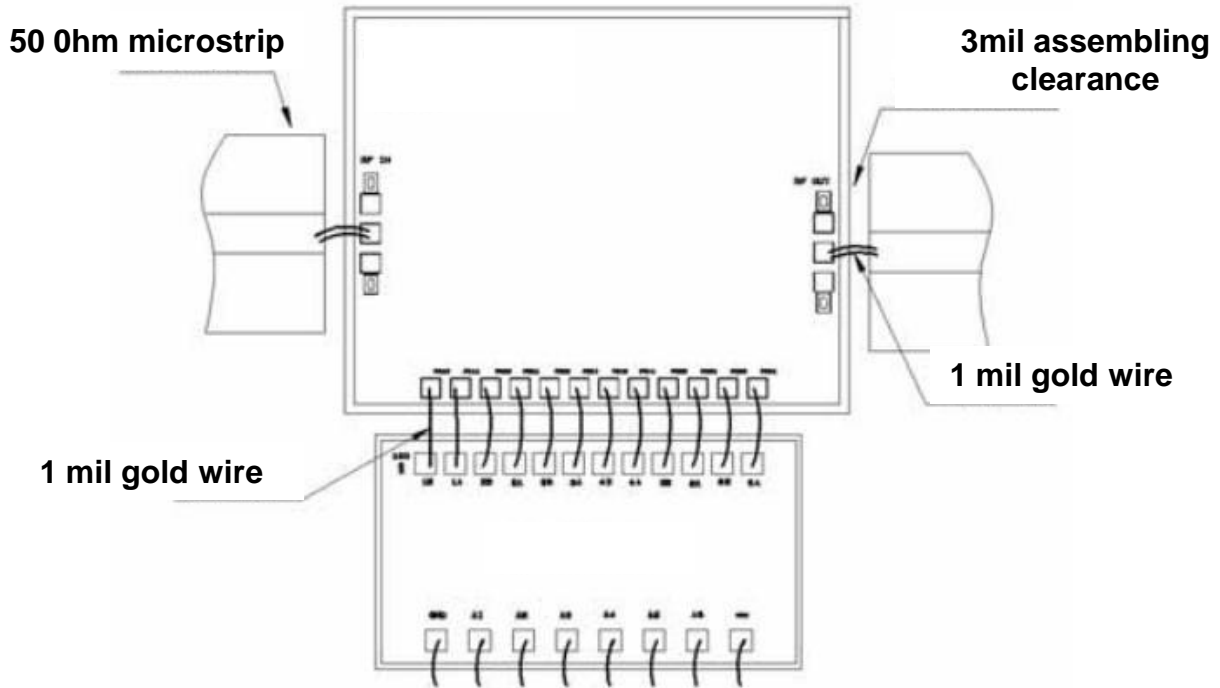


Pad Description

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 ° "ON"; 0V, -5V is 180 ° "OFF"
5,6	90° Control	-5V, 0V is 90 ° "ON"; 0V, -5V is 90 ° "OFF"
7,8	45° Control	-5V, 0V is 45 ° "ON"; 0V, -5V is 45 ° "OFF"
9,10	22.5° Control	-5V, 0V is 22.5 ° "ON"; 0V, -5V is 22.5 ° "OFF"
11,12	11.25° Control	-5V, 0V is 11.25 ° "ON"; 0V, -5V is 11.25 ° "OFF"
13,14	5.625° Control	-5V, 0V is 5.625 ° "ON"; 0V, -5V is 5.625 ° "OFF"
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