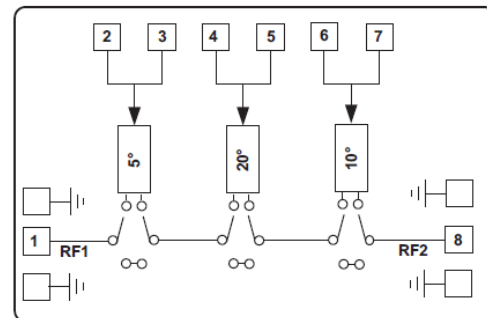


Features

- Phase Shift Range: 35 °
- Minimum Phase Shift: 5 °
- Phase Shift Accuracy RMS: 3.5 °
- Insertion Loss: 1.8dB
- Phase-shifting Amplitude Modulation: ± 0.5 dB
- Impedance: 50 Ω
- Die Size: 1.5 x 1 x 0.1 mm

Typical Applications

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

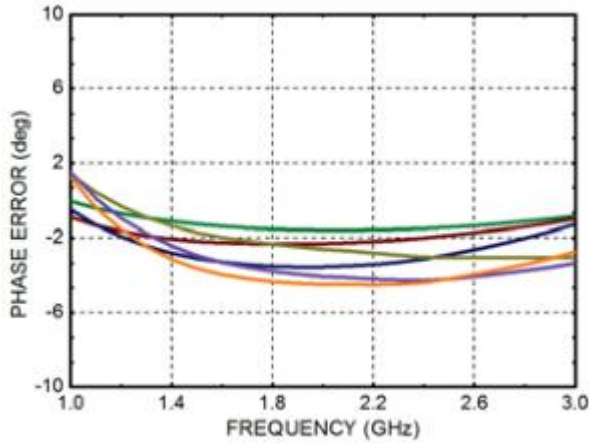
Functional Block Diagram

Electrical Specifications

TA = +25°C, Vctl = 0/-5V

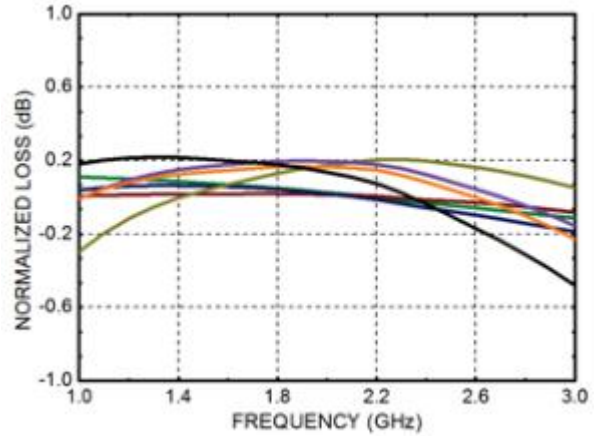
Parameters	Min.	Typ.	Max.	Units
Frequency		1-3		GHz
Insertion Loss		1.8		dB
Phase Shift Accuracy RMS		3.5		°
Phase-shifting Amplitude Modulation		± 0.5		dB
Return Loss		15		dB
Input 1dB Compression (P1dB)		24		dBm
Switching Speed		30		ns



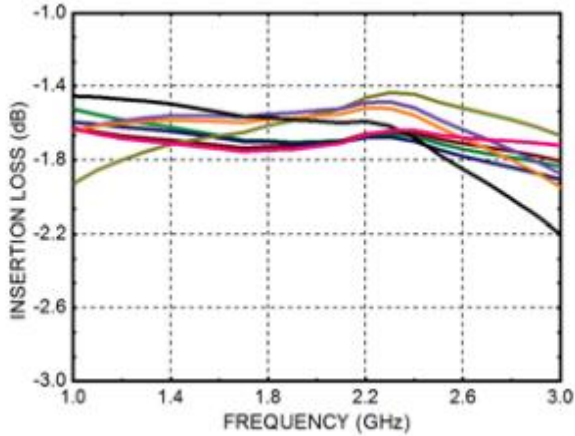
Phase Shift Accuracy(Full-state)



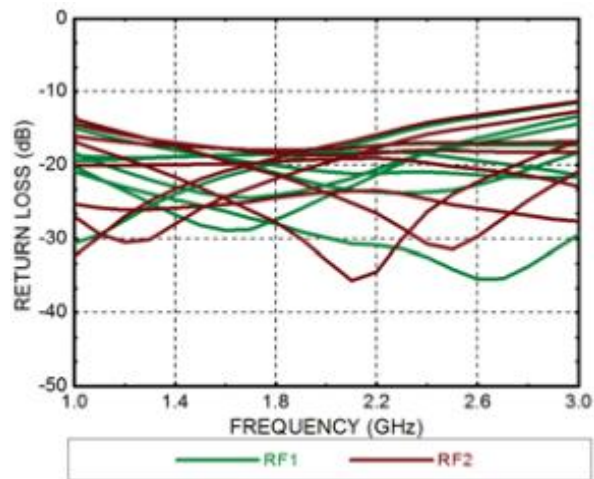
Amplitude Modulation(Full-state)



Insertion Loss(Full-state)



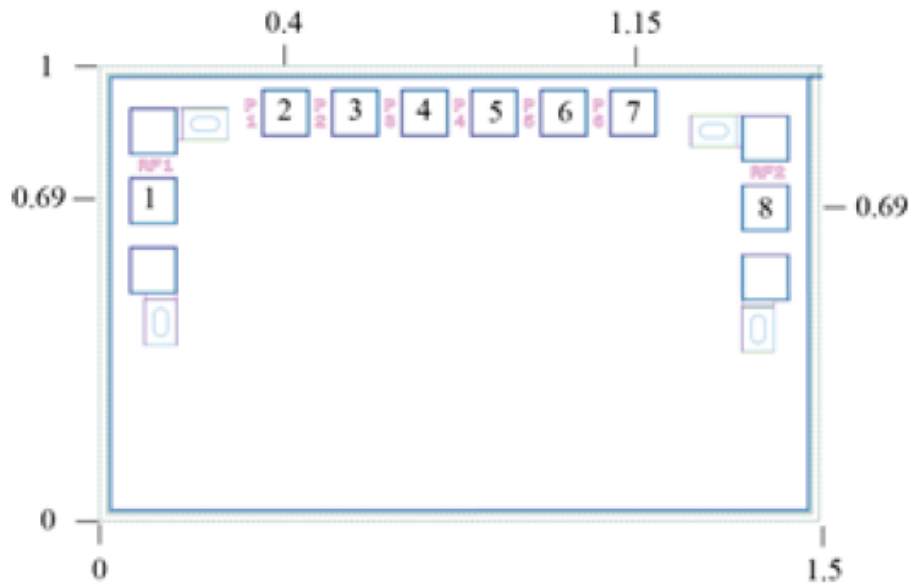
Return Loss(Full-state)





Outline Drawing:

All Dimensions in mm

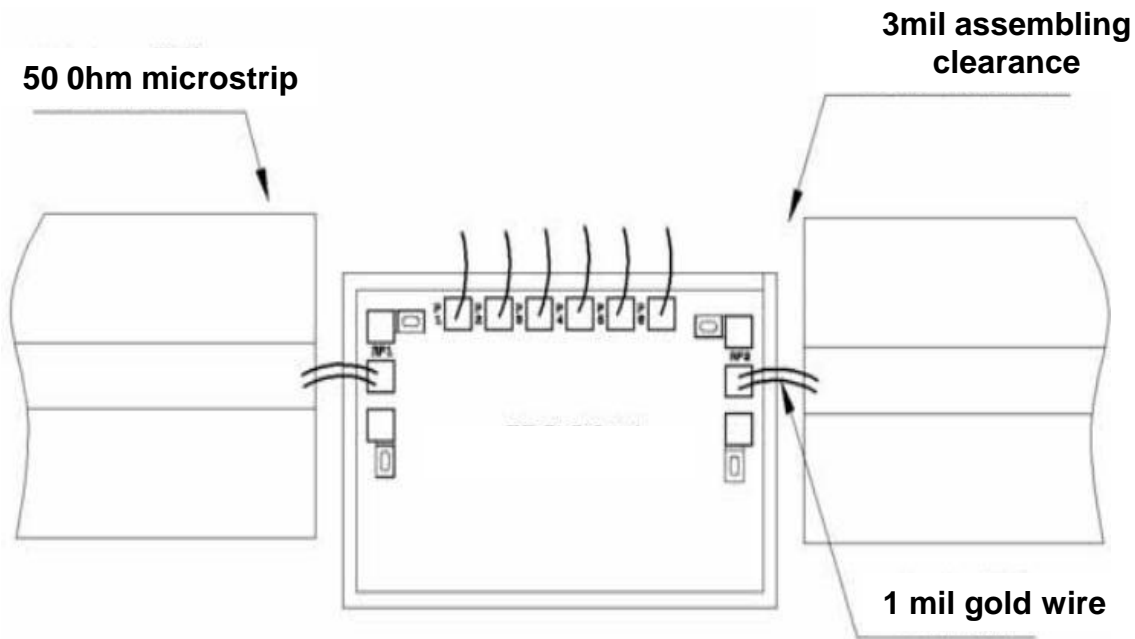


Pad Description

PAD	Function	Description
1	RF1	This pad is RF port and matches to 50Ω Impedance
8	RF2	This pad is RF port and matches to 50Ω Impedance
2,3	P1,P2	P1=0V,P2=-5V, 5° cell "OFF" P1=-5V,P2=0V, 5° cell "ON"
4,5	P3,P4	P3=0V,P4=-5V, 20° cell "OFF" P3=-5V,P4=0V, 20° cell "ON"
6,7	P5,P6	P5=0V,P6=-5V, 10° cell "OFF" P5=-5V,P6=0V, 10° cell "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