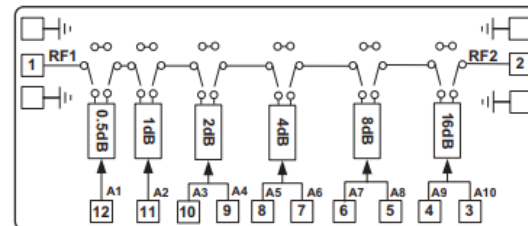


Features

- Attenuation Range: 0.5dB – 31.5dB
- Attenuation Accuracy: ± 0.5 dB
- Insertion Loss : 5.4dB
- Attenuation Additional Phase Shift: $\pm 4^\circ$
- Impedance: 50 Ω
- Die Size: 2.5 x 1.0 x 0.1 mm

Typical Applications

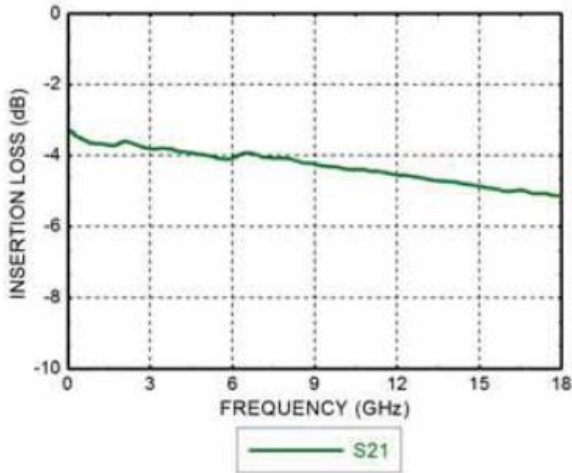
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Functional Block Diagram

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

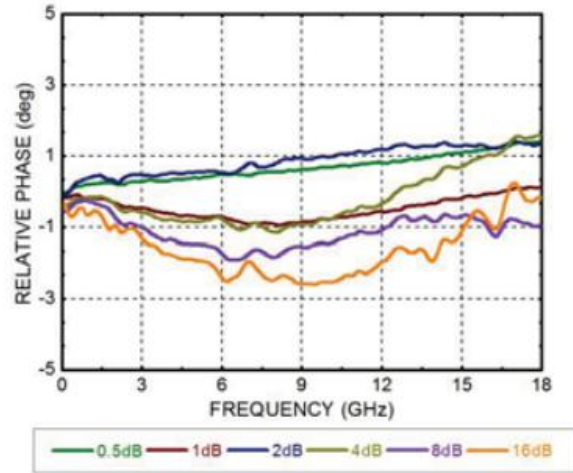
Parameters	Min.	Typ.	Max.	Units
Frequency	0.5-18			GHz
Insertion Loss		5.4		dB
Attenuation Range	0.5		31.5	dB
Return Loss (Direct State)		20		dB
Return Loss (Attenuation State)		18		dB
Input 1dB Compression (P1dB)		24		dBm
Switching Speed		30		ns



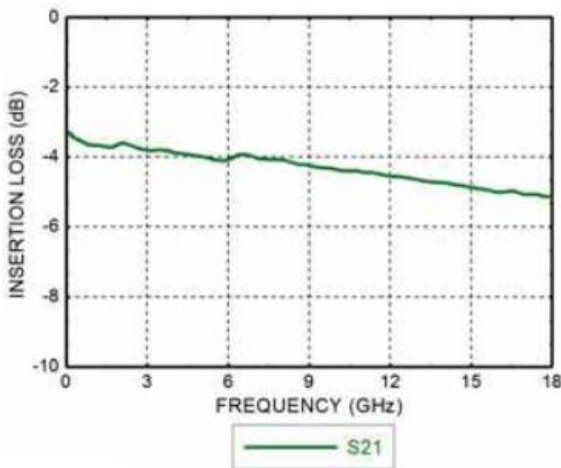
Attenuation



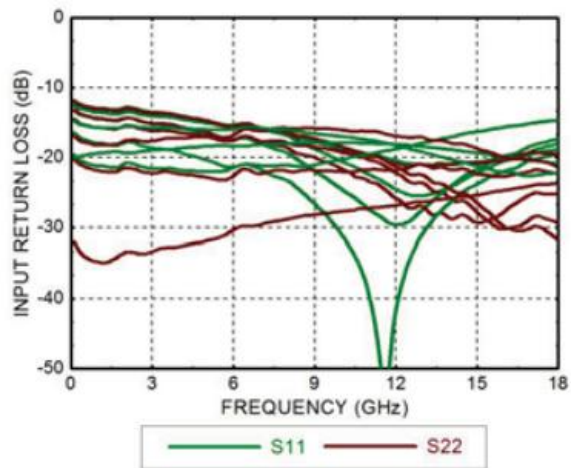
Relative Phase vs. Frequency



Insertion Loss

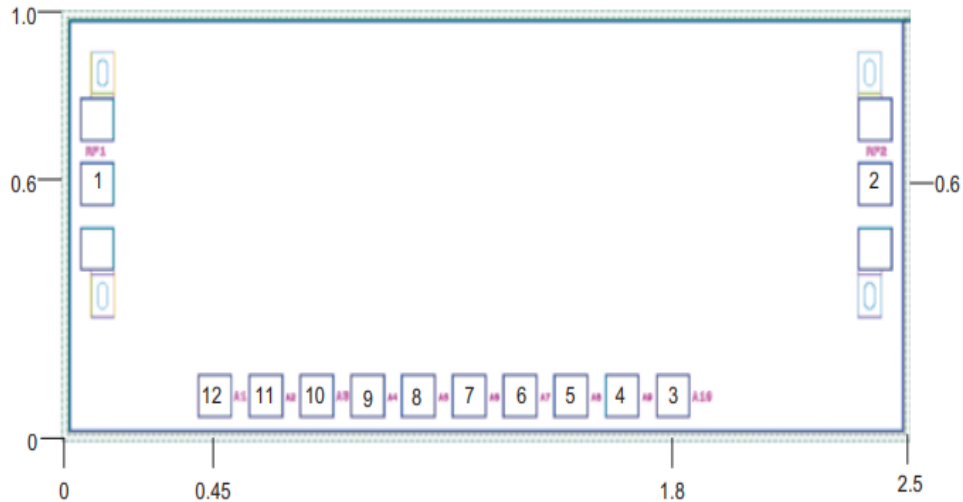


Return Loss





Outline Drawing:
All Dimensions in mm

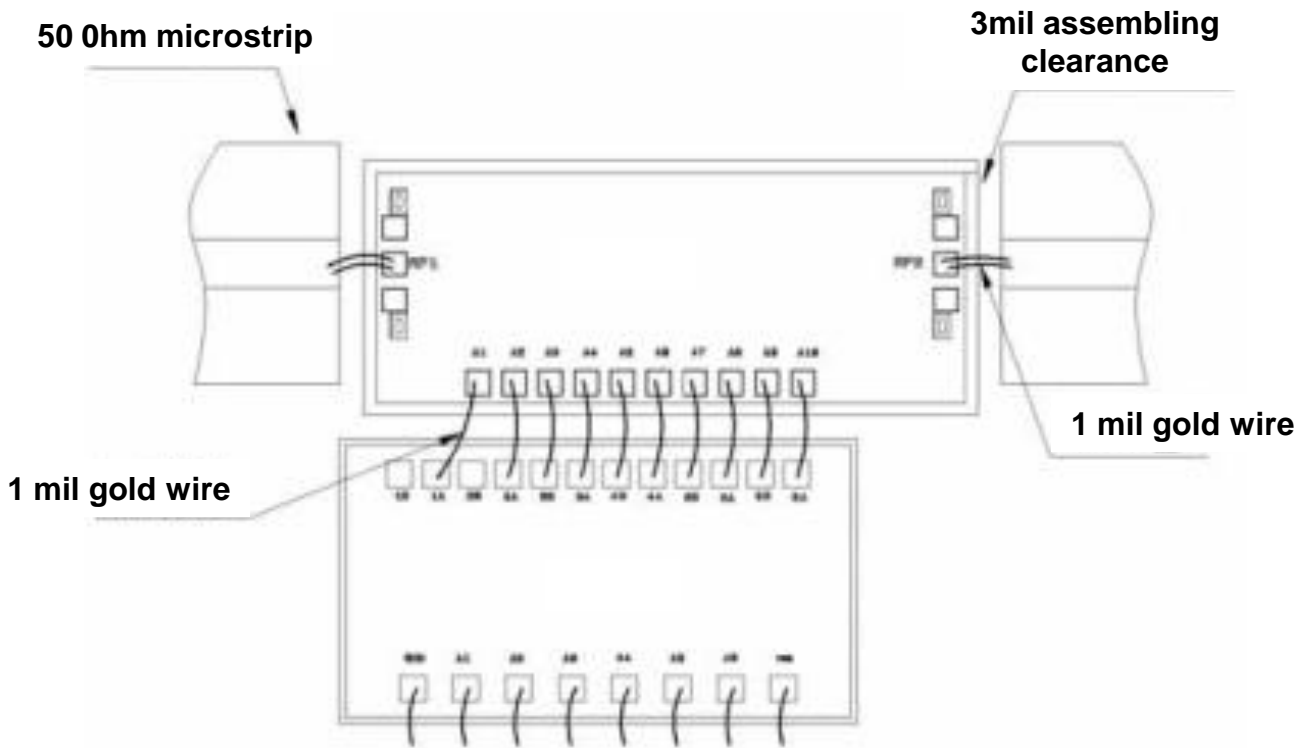


Pad Description

PAD	Function	Description
1	RF1	This pad is RF port and matched to 50Ω Impedance
2	RF2	This pad is RF port and matched to 50Ω Impedance
3, 4	16dB Damping Control End A10 A9	A10=-5V, A9=0V pass-through ; A10=0V,A9=-5V decaying 16dB
5, 6	8dB Damping Control End A8 A7	A8=-5V, A7=0V pass-through ; A8=0V,A7=-5V decaying 8dB
7, 8	4dB Damping Control End A6 A5	A6=-5V, A5=0V pass-through ; A6=0V,A5=-5V decaying 4dB
9, 10	2dB Damping Control End A4 A3	A4=-5V, A3=0V pass-through ; A4=0V,A3=-5V decaying 2dB
11	1dB Damping Control End A2	A2=-5V pass-through ; A2=0V decaying 1dB
12	0.5dB Damping Control End A1	A1=-5V pass-through ; A1=0V decaying 0.5dB
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-+175°C
3. Operating temperature: -55-+85°C