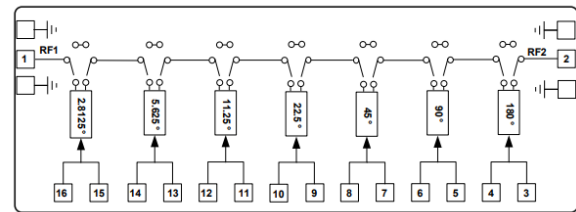


Features

- Phase Shift Range: 360 °
- Minimum Phase Shift: 2.8125°
- Phase Shift Accuracy RMS: 8 °
- Insertion Loss: 14dB
- Phase Shift Amplitude Modulation: ± 1 dB
- Impedance: 50 Ω
- Die Size: 3 x 3x 0.1 mm

Typical Applications

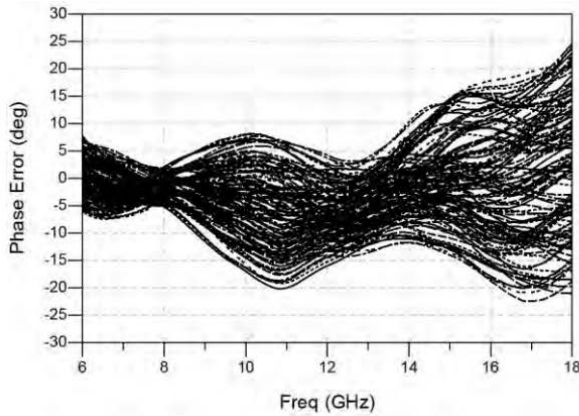
- Test Instrumentation
- Microwave Radio & VSAT
- Military & Space
- Telecom Infrastructure
- Fiber Optics

Functional Block Diagram

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

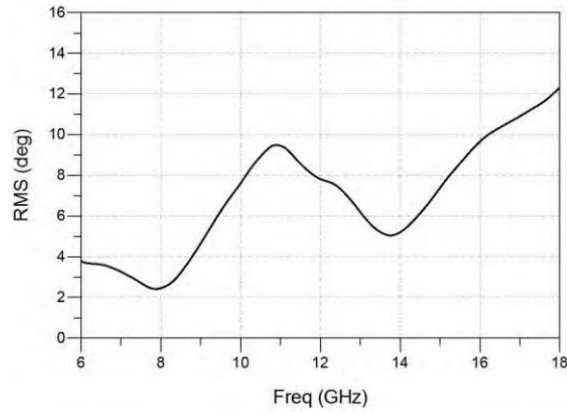
Parameters	Min.	Typ.	Max.	Units
Frequency	6-18			GHz
Insertion Loss		14	16.8	dB
Phase Shift Accuracy RMS		8	13	°
Phase Shift Amplitude Modulation		± 1	± 3.5	dB
Return Loss		15		dB
P-1dB		24		dBm
Switching Speed		30		ns



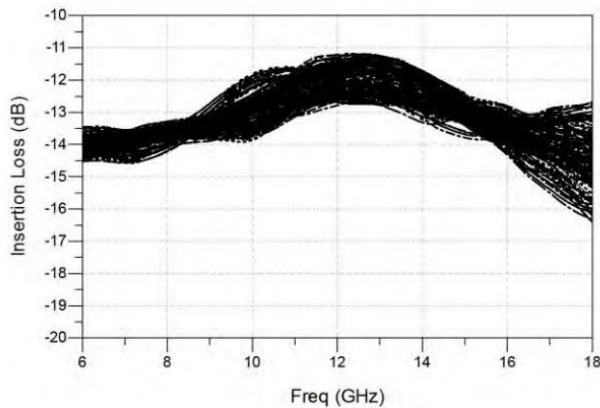
Phase Shift Accuracy



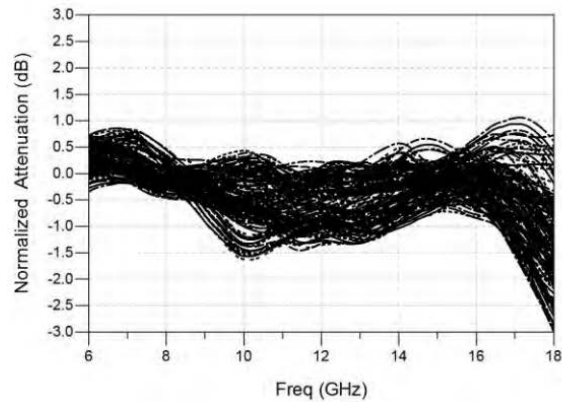
Phase Shift Accuracy (RMS)



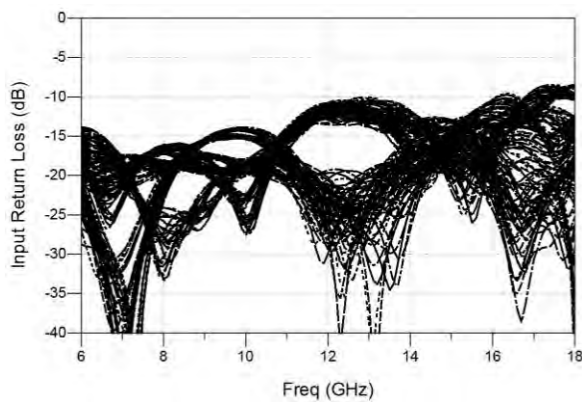
Insertion Loss



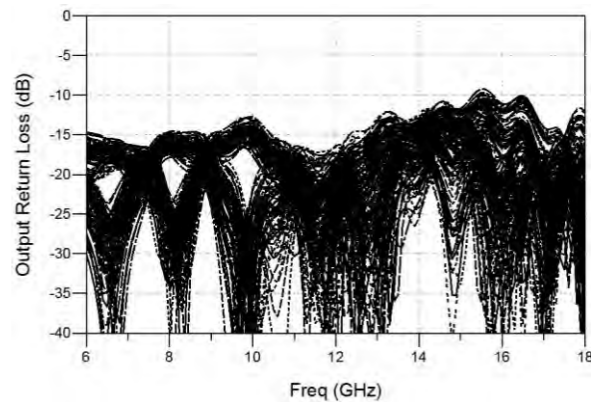
Amplitude Modulation



Input Return Loss

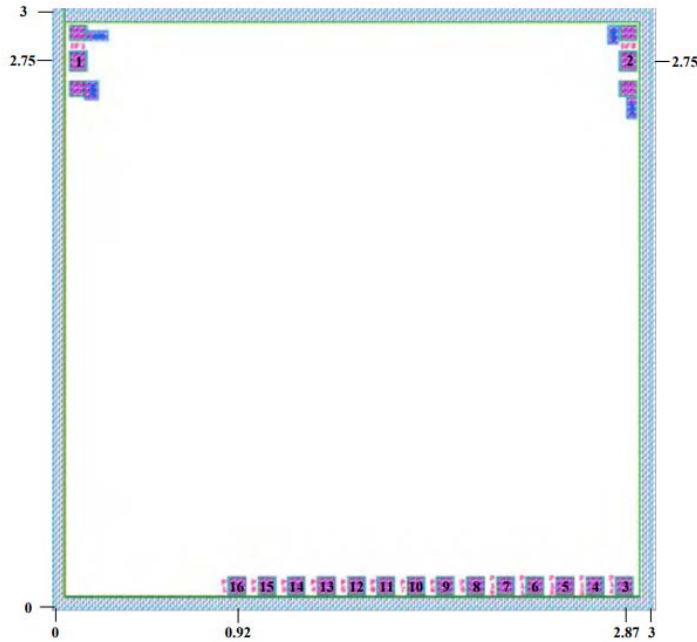


Output Return Loss





Outline Drawing:
All Dimensions in μm



Pad Description

PAD	Function	Description
1, 2	RF1, RF2	RF port; This pad is DC coupling, 50 ohm matched; if the RF is not 0V, an external DC blocking capacitor is required
3, 4	P14, P13	-5V, 0V, 180° phaser off; 0V, -5V, 180° phaser on
5, 6	P12, P11	-5V, 0V, 90° phaser off; 0V, -5V, 90° phaser on
7, 8	P10, P9	-5V, 0V, 45° phaser off; 0V, -5V, 45° phaser on
9, 10	P8, P7	-5V, 0V, 22.5° phaser off; 0V, -5V, 22.5° phaser on
11, 12	P6, P5	-5V, 0V, 11.25° phaser off; 0V, -5V, 11.25° phaser on
13, 14	P4, P3	-5V, 0V, 5.625° phaser off; 0V, -5V, 5.625° phaser on
15, 16	P2, P1	-5V, 0V, 2.8125° phaser off; 0V, -5V, 2.8125° phaser on
GND	GND	Die bottom must be connected to RF/DC ground