

**Performance**

- Frequency: DC-18GHz
- Insertion loss: 3.5dB
- LSB: 0.5dB
- Attenuation: 0~31.5dB
- Attenuation Accuracy: 0.4dB
- Input/Output VSWR: 1.3/1.2
- Ton/Toff: 20ns
- Control Mode: TTL
- Voltage: -5V(3mA)
- Chip size: 2.2\*1.0\*0.08mm

**Electrical Specifications (Ta=+25°C, 50Ω system)**

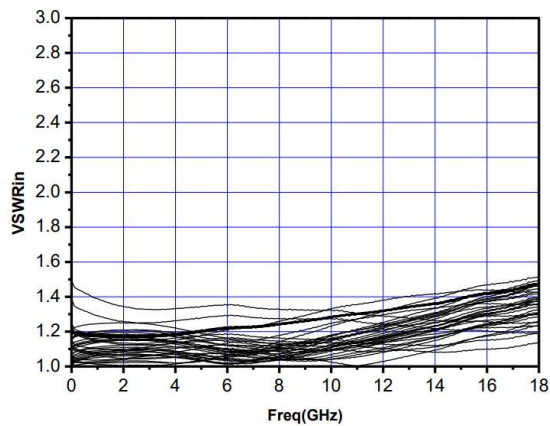
Parameter	Test Condition	Min	Typical	Max	Unit
Insertion Loss	Freq: DC-18GHz V1~V6=TTL	-	3.5	-	dB
Attenuation Accuracy		-	0.3	-	dB
VSWR in/out		-	1.3	-	

**Attenuation Accuracy (Ta=+25°C)**

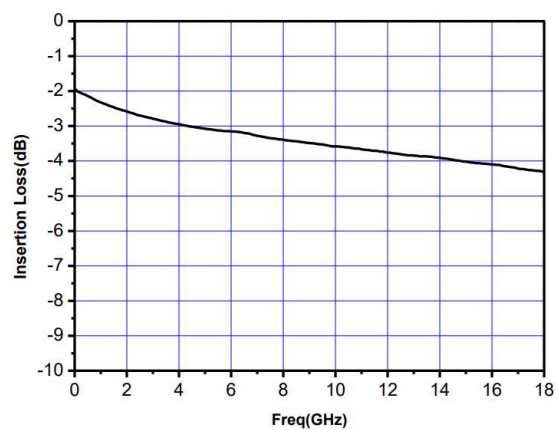
Symbol	State	Value			Unit
		Min.	Typ.	Max.	
Li	Ref.	-	-	4.6	dB
	0.5 dB	0.2	-	0.8	dB
	1.0 dB	0.6	-	1.4	dB
	2.0 dB	1.5	-	2.5	dB
	4.0 dB	3.4	-	4.6	dB
	8.0 dB	7.0	-	9.0	dB
	16.0 dB	14.8	-	17.2	dB

**Test Curves**

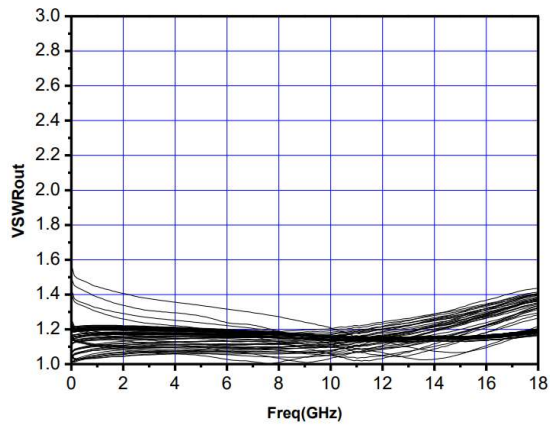
VSWRin vs. Freq



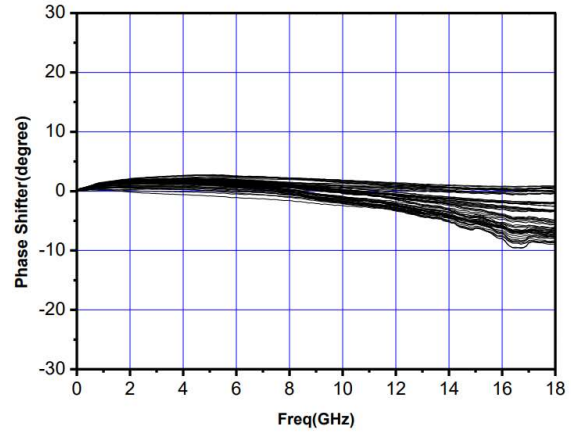
VSWRout vs. Freq



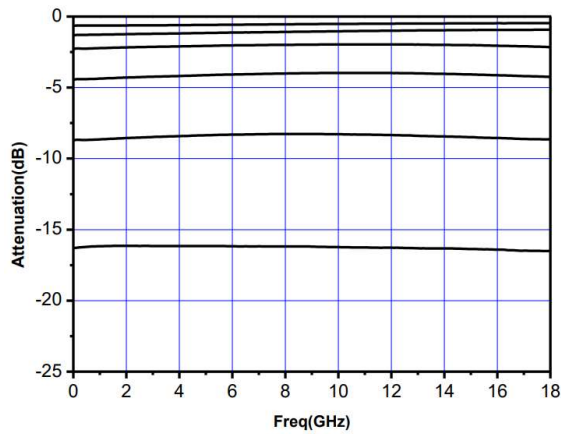
Insertion loss vs. Freq



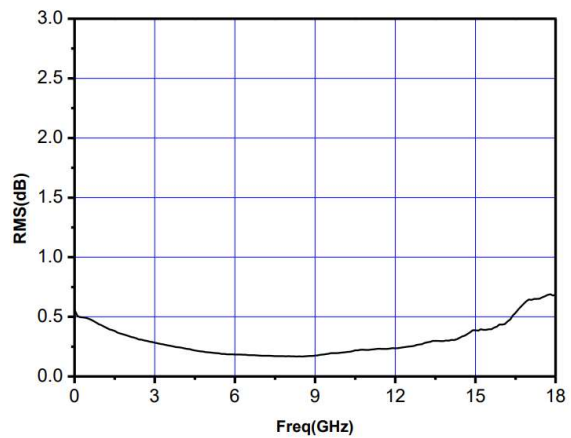
Add phase shift vs. Freq



Attenuation all state vs. Freq



Attenuation accuracy vs. Freq



**Truth Table**

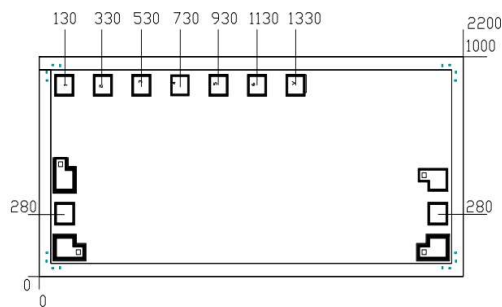
Attenuation State RFin-RFout	V1	V2	V3	V4	V5	V6	VEE
IL	0	0	0	0	0	0	-5V
0.5dB	1	0	0	0	0	0	-5V
1dB	0	1	0	0	0	0	-5V
2dB	0	0	1	0	0	0	-5V
4dB	0	0	0	1	0	0	-5V
8dB	0	0	0	0	1	0	-5V
16dB	0	0	0	0	0	1	-5V

### Absolute Maximum Ratings

Symbol	Parameter	Value	Remark
V	Voltage	0.5/-6V	
Pin	Input Power (CW mode)	25dBm	
Tch	Channel Temperature	150°C	
Tm	Mounting Temperature	300°C	1 min, N2 protecting
Tstg	Storage Temperature	-55 ~ +150°C	

Note: Exceed any or combination of above conditions may cause permanent damage.

### Outline Size



Note:

1. Unit:  $\mu\text{m}$
2. Bottom side is gold plated
3. Bottom side is GND
4. Bonding pads is gold plated
5. Don't bonding on thru holds
6. Tolerance:  $\pm 50\mu\text{m}$

### Assembly Diagram

