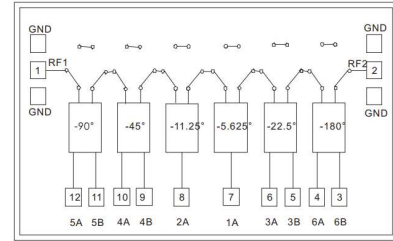


Performance

- Frequency: 1.6~3.2GHz
- Insertion loss: 10dB
- Phase shift accuracy (RMS): 1.5°
- Amplitude Ripple: ±0.5dB
- Chip size: 5.00*3.00*0.1mm

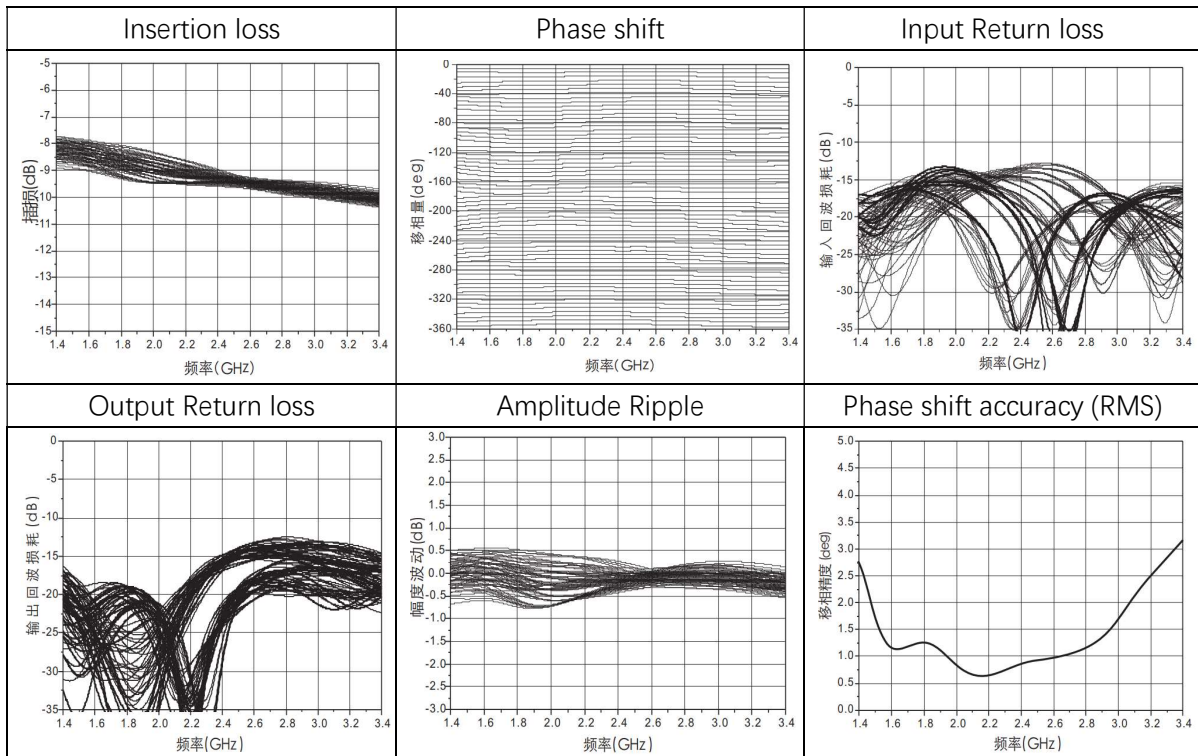
Function Diagram



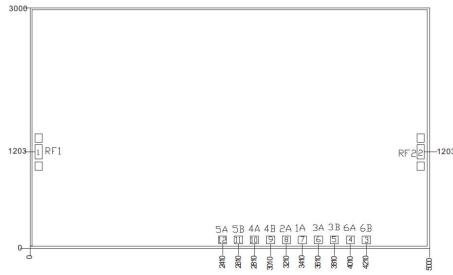
Electrical Specifications (Ta=+25°C, 0/-5V control, 50Ω system)

Parameter	Test Frequency	Min	Typical	Max	Unit
Insertion Loss	1.6~3.2GHz	-	10	10.5	dB
Amplitude Ripple	1.6~3.2GHz	-	±0.5	±0.8	dB
Phase shift accuracy (RMS)	1.6~3.2GHz	-	1.5	2.5	deg
Return loss (RF1, RF2)	1.6~3.2GHz	-	15	-	dB
Input P1dB	1.6~3.2GHz	-	21	-	dBm
Input IP3	1.6~3.2GHz	-	35	-	dBm
Switch time	-	-	10	-	ns

Test Curves



Outline Size



Note:

1. Unit: um
2. Bottom side is gold plated
3. Bottom side is GND
4. Bonding pads is gold plated, size:
1,2: 90*180(um); 3-12: 100*100(um)
5. Don't bonding on thru holds
6. Tolerance: $\pm 50\mu\text{m}$

Truth Table

-5.625°	-11.25°	-22.5°		-45°		-90°		-180°		Phase shift Status
1A	2A	3A	3B	4A	4B	5A	5B	6A	6B	
1	1	1	0	1	0	1	0	1	0	Reference
0	1	1	0	1	0	1	0	1	0	-5.625°
1	0	1	0	1	0	1	0	1	0	-11.25°
1	1	0	1	1	0	1	0	1	0	-22.5°
1	1	1	0	0	1	1	0	1	0	-45°
1	1	1	0	1	0	0	1	1	0	-90°
1	1	1	0	1	0	1	0	0	1	-180°

Bonding Pads Definition

Number	Symbol	Description
1,2	RF1, RF2	RF port, 50ohm
4,6,7,8,10,12	CTRL A	Control Port
3,5,9,11	CTRL B	Control Port
-	GND	Bottom must be GND

Control Voltage

Status	Bias
Low (0)	0~-0.2V
High (1)	-3~-5V



ELECTROSTATIC SENSITIVE DEVICE
OBSERVE HANDLING PRECAUTIONS

Absolute Max Ratings

Input Power	+24dBm
CTRL Range (V1 to V6)	+0.5V~-7V
Junction Temperature	175°C
Storage Temperature	-65 ~ +150°C
Operating Temperature	-55 ~ +125°C
Static Protection (HBM)	Class 1A

Application

