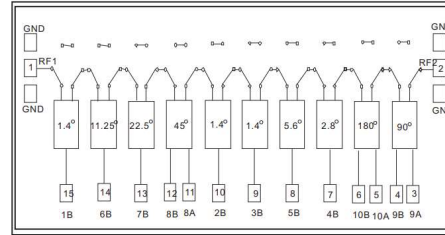


### Performance

- Frequency: 1.5~1.8GHz
- Insertion loss: 5dB
- Phase shift accuracy (RMS): 2°
- Amplitude Ripple:  $\pm 0.5$ dB
- Chip size: 2.89\*3.15\*0.1mm

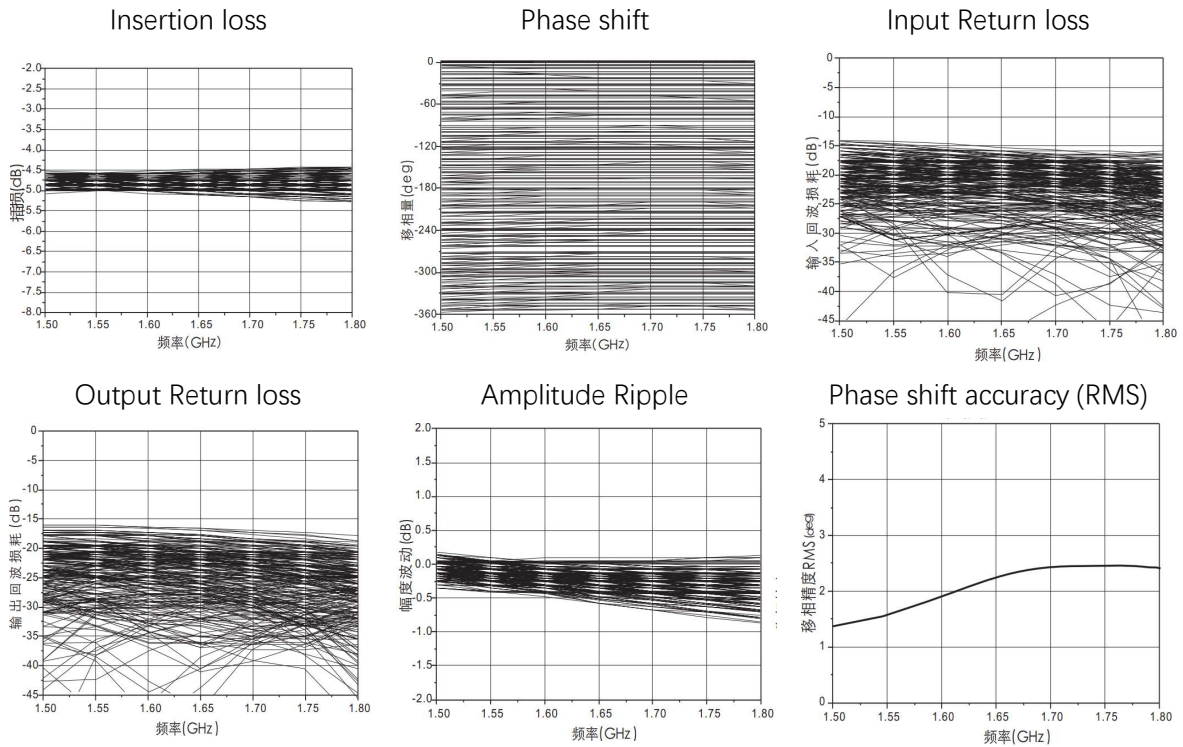
### Function Diagram



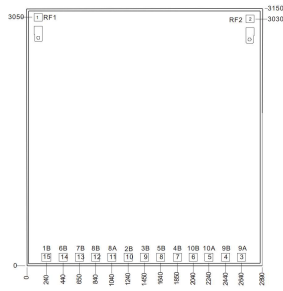
### Electrical Specifications (Ta=+25°C, 0/-5V control, 50Ω system)

Parameter	Test Frequency	Min	Typical	Max	Unit
Insertion Loss	1.5~1.8GHz	-	5	5.3	dB
Amplitude Ripple	1.5~1.8GHz	-	$\pm 0.5$	$\pm 1.5$	dB
Phase shift accuracy (RMS)	1.5~1.8GHz	-	2.0	2.5	deg
Return loss (RF1, RF2)	1.5~1.8GHz	-	15	-	dB
Input P1dB	1.5~1.8GHz	-	20	-	dBm
Input IP3	1.5~1.8GHz	-	34	-	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  
Pads size: 100\*100(um)
5. Don't bonding on thru holds
6. Tolerance: ±50um

**Truth Table**

-1.4°	-1.4°	-1.4°	-2.8°	-5.625°	-11.25°	-22.5°	-45°	-90°	-180°	P.S			
1B	2B	3B	4B	5B	6B	7B	8B	8A	9B	9A	10B	10A	Status
0	0	0	0	0	0	0	0	1	0	1	0	1	Ref
1	0	0	0	0	0	0	0	1	0	1	0	1	-1.4°
0	1	0	0	0	0	0	0	1	0	1	0	1	-1.4°
0	0	1	0	0	0	0	0	1	0	1	0	1	-1.4°
0	0	0	1	0	0	0	0	1	0	1	0	1	-2.8°
0	0	0	0	1	0	0	0	1	0	1	0	1	-5.625°
0	0	0	0	0	1	0	0	1	0	1	0	1	-11.25°
0	0	0	0	0	0	1	0	1	0	1	0	1	-22.5°
0	0	0	0	0	0	0	1	0	1	0	1	0	-45°
0	0	0	0	0	0	0	0	1	1	0	0	1	-90°
0	0	0	0	0	0	0	0	1	0	1	1	0	-180°

**Bonding Pads Definition**

Number	Symbol	Description
1,2	RF1, RF2	RF port, 50ohm
3,5,11	CTRL A	Control Port
4,6,7,8,9,10, 12,13,14,15	CTRL B	Control Port
-	GND	Bottom must be GND

**Control Voltage**

Status	Bias
Low	0~-0.2V
High	-3~-5V



**Absolute Max Ratings**

Input Power	+24dBm
CTRL Range (A,B)	+0.5V~-7.0V
Junction Temperature	175°C
Storage Temperature	-65 ~ +150°C
Operating Temperature	-55 ~ +125°C
Static Protection (HBM)	Class 1A

**Assemble Info**

