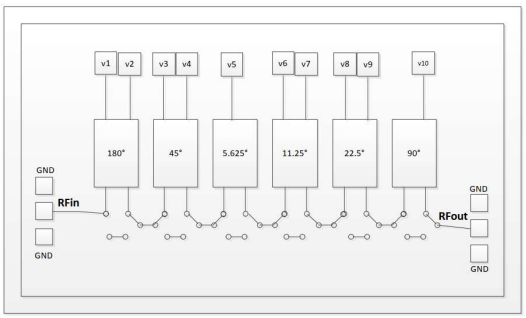
Performance

- Frequency: 22~26GHz
- Phase Bit: 6 Bits, 5.625° step
- Insertion loss: 9dB
- Phase Error (RMS): 2°
- Amplitude Equalization: ±0.5dB
- VSWR: 1.5
- Voltage: 0/-5V
- Chip size: 3.19*1.39*0.1mm

Function Diagram



Electrical Specifications (Ta=+25℃, V1~V12: 0V/-5V, F=22~26GHz)

Symbol	Parameter	Min	Typical	Max	Unit
Li	Insertion Loss (Ground State)	-	9	-	dB
⊿Li	Amplitude Equalization	-	±0.5	-	dB
RMS	RMS Phase Error	-	2	-	°
VSWR	Input/Output VSWR	-	1.5	-	

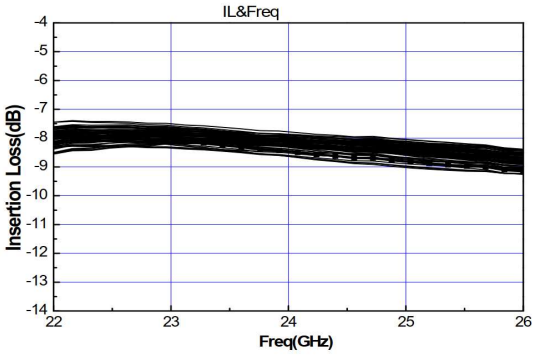
Absolute Maximum Ratings

Symbol	Parameter	Value	Remark
V1~V12	Control Voltage	0.5V/-7V	
Pin	Input Power (CW)	25dBm	
Tch	Channel Temperature	150℃	
Tm	Mounting Temperature	300℃	1min, N_2 protecting
Tstg	Storage Temperature	-55~150℃	

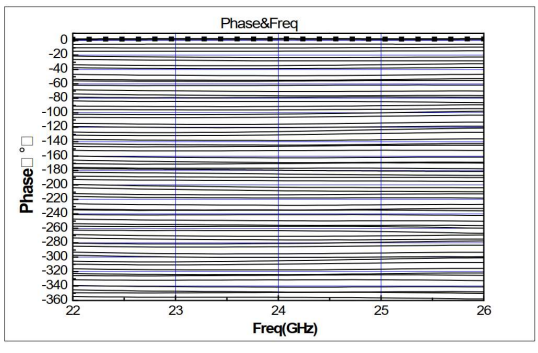
Exceed any of above ratings may cause permanent damage.

Test Curves

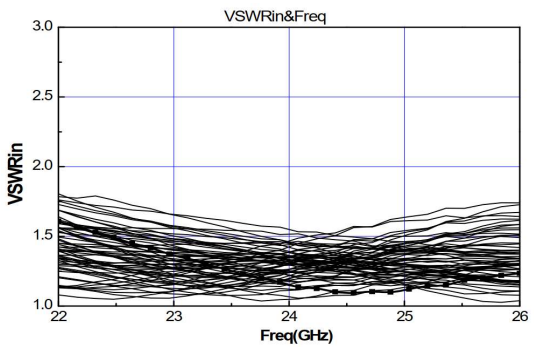
Insertion Loss vs. Freq



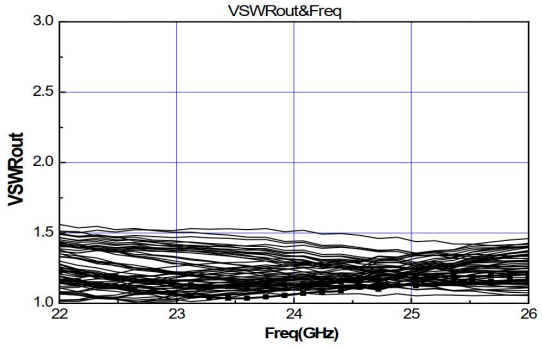
64 States Phase Shifting vs. Freq



Input VSWR vs. Freq



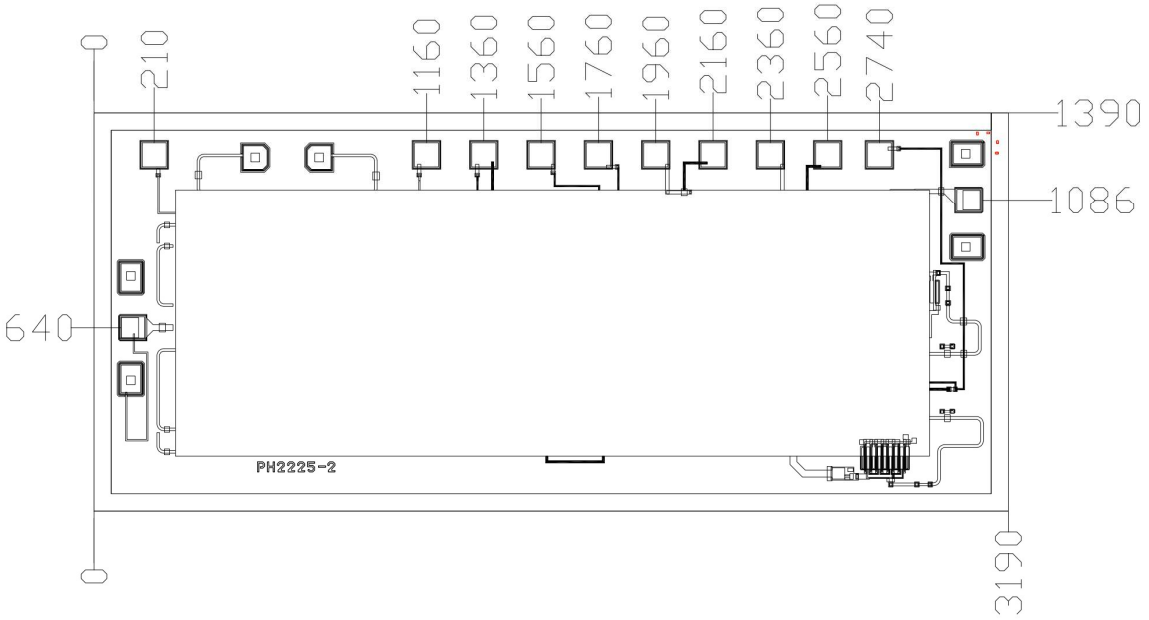
Output VSWR vs. Freq.



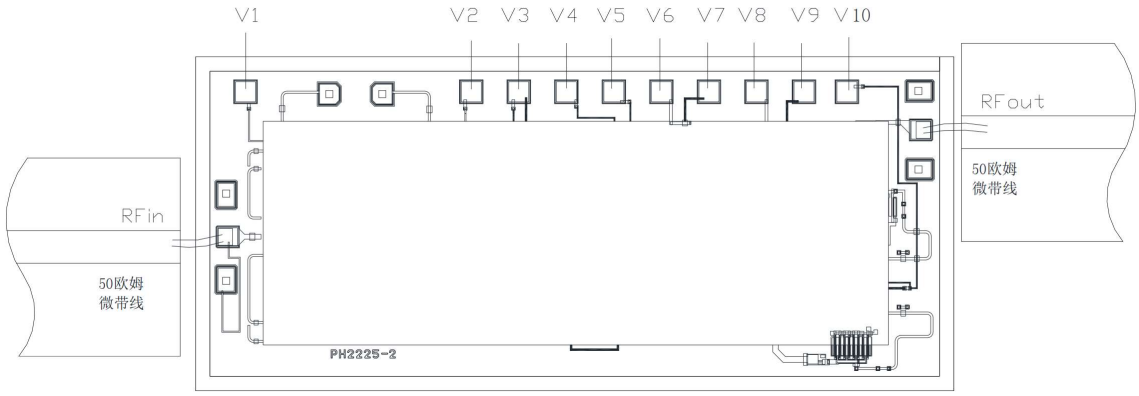
Truth Table

Function	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10
Ground State	-5V	0V	-5V	0V	-5V	-5V	0V	-5V	0V	-5V
5.625°	-5V	0V	-5V	0V	0V	-5V	0V	-5V	0V	-5V
11.25°	-5V	0V	-5V	0V	-5V	0V	-5V	-5V	0V	-5V
22.5°	-5V	0V	-5V	0V	-5V	-5V	0V	0V	-5V	-5V
45°	-5V	0V	0V	-5V	-5V	-5V	0V	-5V	0V	-5V
90°	-5V	0V	-5V	0V	-5V	-5V	0V	-5V	0V	0V
180°	0V	-5V	-5V	0V	-5V	-5V	0V	-5V	0V	-5V

Outline Drawing (mm)



Assembly Drawing



Pads Definition

Pad	Description
RFin, RFout	RF signal input port and output port, connect to 50 ohm system, no block capacitor needed.
V1~V10	Control ports