

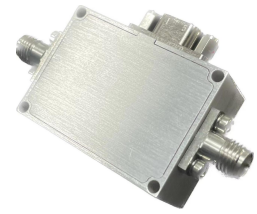
# 7.9-8.5GHz Digital Phase Shifter

P/N: DPH079085GA360F



### Description:

The phase shifter is a broadband digital phase shifter with a typical insertion loss of 8.5 dB and a high phase shift range of 360° across the frequency range of 7.9 to 8.5 GHz. The Phase shifter's step is 22.5° with 4 bit control. Accept customization according to different needs.



- Radar Systems
- Communication Systems
- Receivers Systems

### Electrical Specifications ( +25°C ) :

Parameter	Min.	Typ.	Max.	Units
Frequency Range		7.9-8.5		GHz
Insertion Loss		8.5	9.0	dB
Input VSWR		1.7	2.0	:1
Output VSWR		1.7	2.0	:1
Phase Shift Range		360		°
Power Handling			23	dBm
Phase Shift Accuracy		±10		°
Insertion Loss Variation		±1		dB
Switching Speed		100		ns
Control Voltage		TTL		V
Power supply		+5V@30mA/-5V@-20mA		-
Least Significant Bit		22.5		°
Number of Bits		4		-
Impedance		50		Ω
Input Output Connector		SMA-Female/SMA-Female		
DC and Control Interface		J30J-9ZKP		
Control Logic		TTL		
Material		Aluminium\Native conductive oxidation		
Weight		30g		
Package Sealing		General Sealing (Standard)		

### Environmental Specifications:

- ※ Operational Temperature -25°C~+85°C
- ※ Storage Temperature -55°C~+125°C



OBSERVE  
PRECAUTIONS ELECTROSTATIC  
SENSITIVE DEVICES

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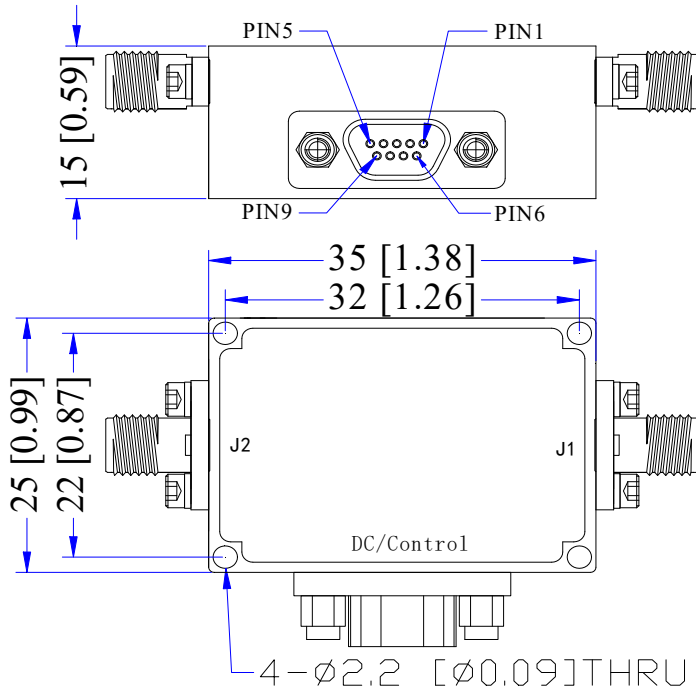
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## Outline Drawing

All Dimensions in mm (inches) Tolerance  $\pm 0.25$  (0.01)



Truth Table				
TTL Control Input				Signal Path State
Bit4	Bit3	Bit2	Bit1	
0	0	0	0	Reference
0	0	0	1	-22.5°
0	0	1	0	-45°
0	1	0	0	-90°
1	0	0	0	-180°
1	1	1	1	-358.60°

TTL Control Voltages & VDD	
Stage	Bias Condition
VDD	+5V ( $\pm 5\%$ )
VEE	-5V ( $\pm 5\%$ )
Low (0)	0 to 0.8Vdc
High (1)	+2.0 to +5.0Vdc

## J30J-9ZKP Pin Define

1	2	3	4	5	6	7	8	9
+5V	-5V	GND	Bit1	Bit2	Bit3	Bit4	NC	NC

### NOTE:

1. The product is designed to meet environmental ratings but not tested. If you need to test environmental condition, please contact our sales department.
2. Miczen technologies co., Ltd. reserves the right to change the above information without notice.

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