

Model: TLDP-6G18G-360-6
**6-Bit Digital Phase Shifter
6-18GHz**
Feature:

- Ultra Wide Band: 6-18GHz
- High Phase Shift Accuracy
- High Phase Shift Range
- Low Phase Error

Electrical:

Parameter	Min.	Typ.	Max.	单位Units
Frequency range	6-18			GHz
Insertion Loss		10		dB
Input VSWR		1.8		:1
Output VSWR		1.8		:1
Phase Shift Range		360		°
Phase accuracy		±4		°
Power Handling			27	dBm
Amplitude Balance			±0.5	dB
Switching speed		100		ns
DC Voltage		+5		V DC
DC Supply Current		30		mA
Number of Bits		6		Bit

Mechanical :

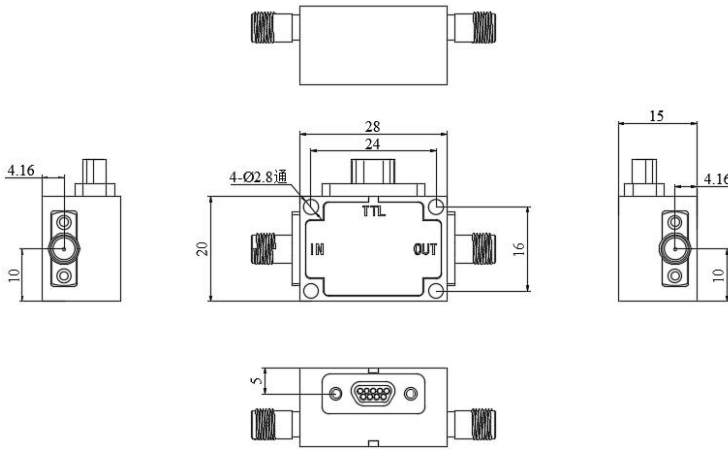
Parameter	Value	Units
Input /Output Connector	SMA Female	
DC and control interface	J30J-9ZKP	
Size	28*20*15	mm
Weight	55	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+5V (±5%)
RF Input Power	27 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit: mm(Inches)



Truth Table						
TTL Control Input						Signal Path State
Bit1	Bit2	Bit3	Bit4	Bit5	Bit6	
0	0	0	0	0	0	Reference
1	0	0	0	0	0	5.625
0	1	0	0	0	0	11.25
0	0	1	0	0	0	22.5
0	0	0	1	0	0	45
0	0	0	0	1	0	90
0	0	0	0	0	1	180
1	1	1	1	1	1	354.375

PIN	1-6	7	8	9
Function	Bit1-Bit6	+5V	NC	GND

Environmental Conditions:

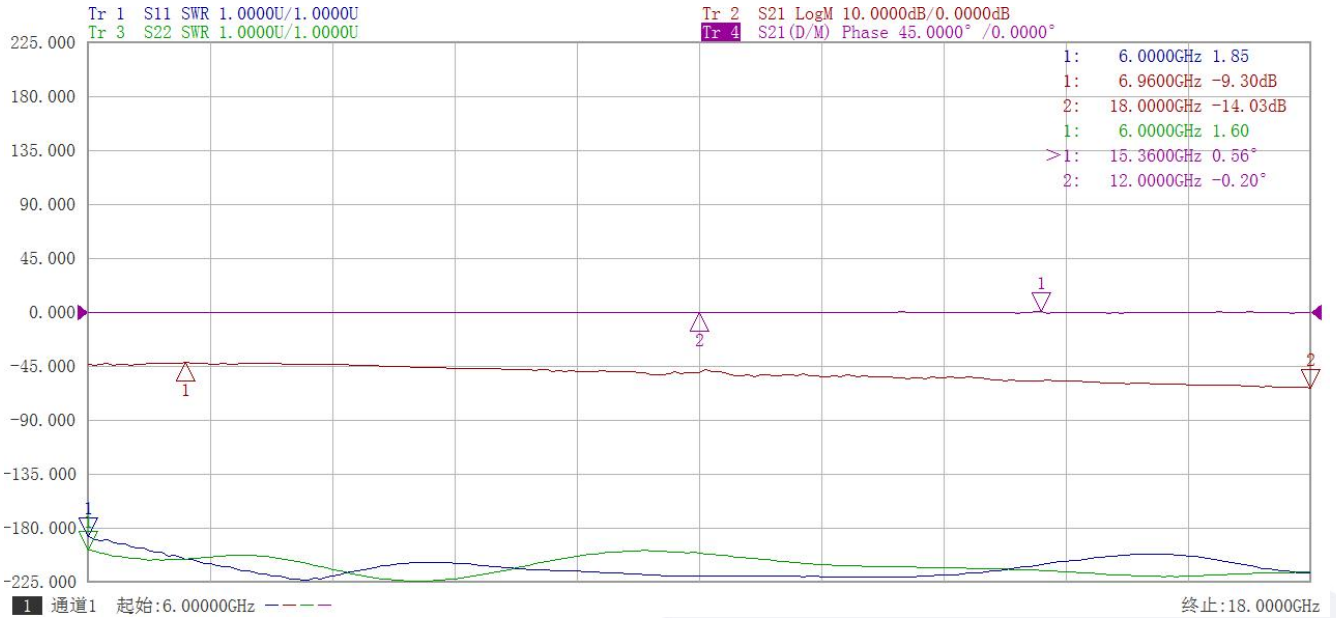
Parameter	Min.	Typ.	Max.	单位Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Part Number	Description	Revision
TLDP-6G18G-360-6	6-Bit Digital Phase Shifter,6-18GHz,SMA	Rev.1.1

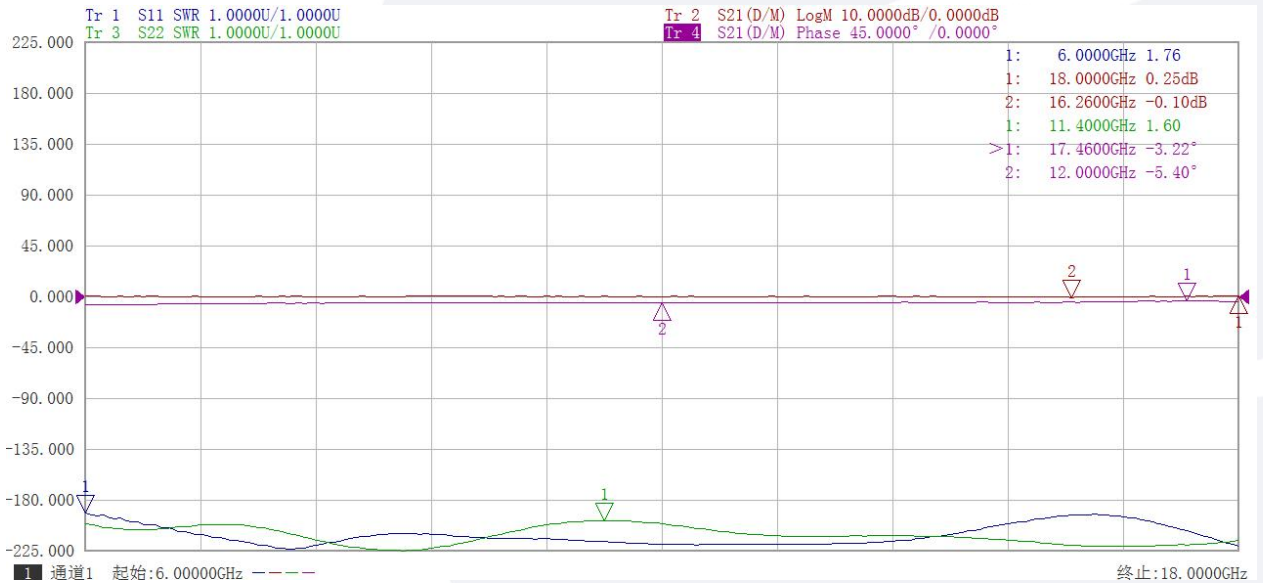
Typical Performance Data:

1) Reference



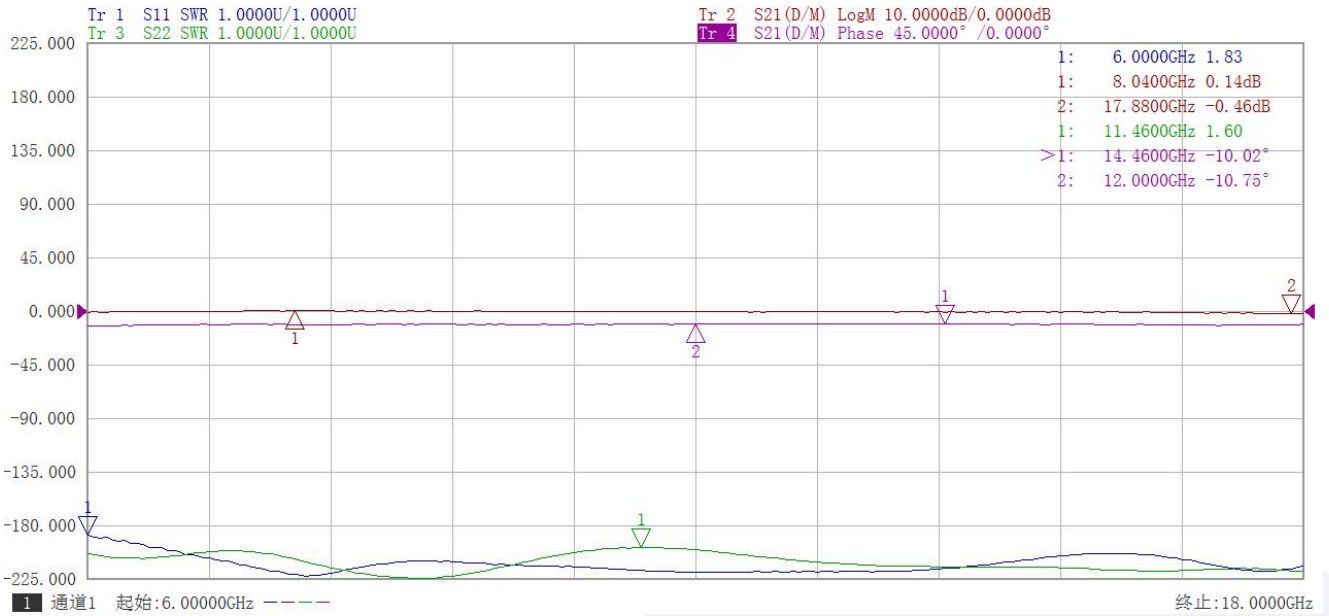
Tr1、Tr3: VSWR Tr2: Insertion Loss(Amplitude Balance)Tr4: Phase accuracy

2) 5.625°

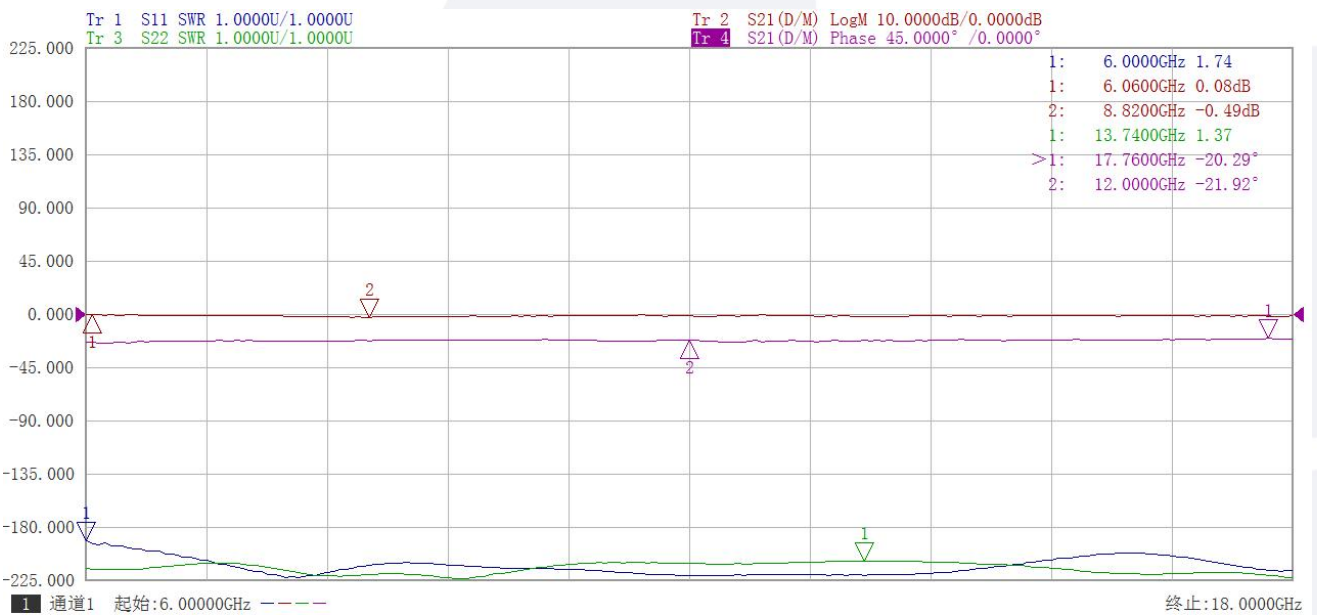


Typical Performance Data:

3) 11.25°

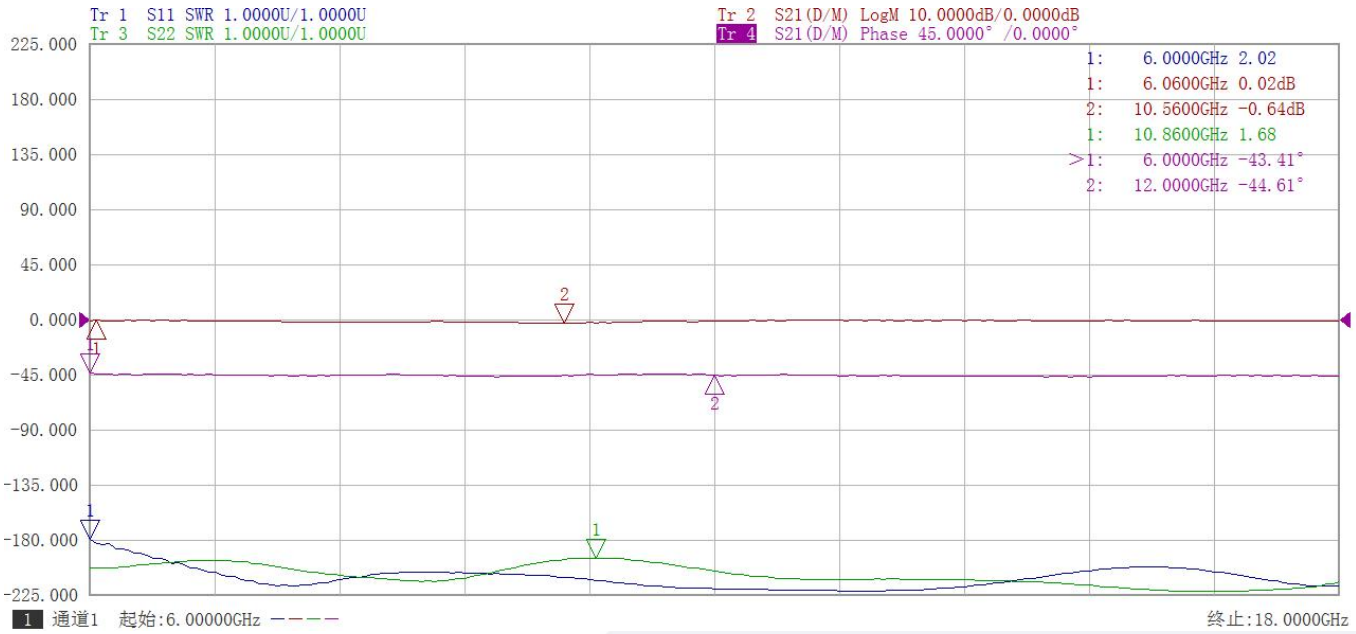


4) 22.5°

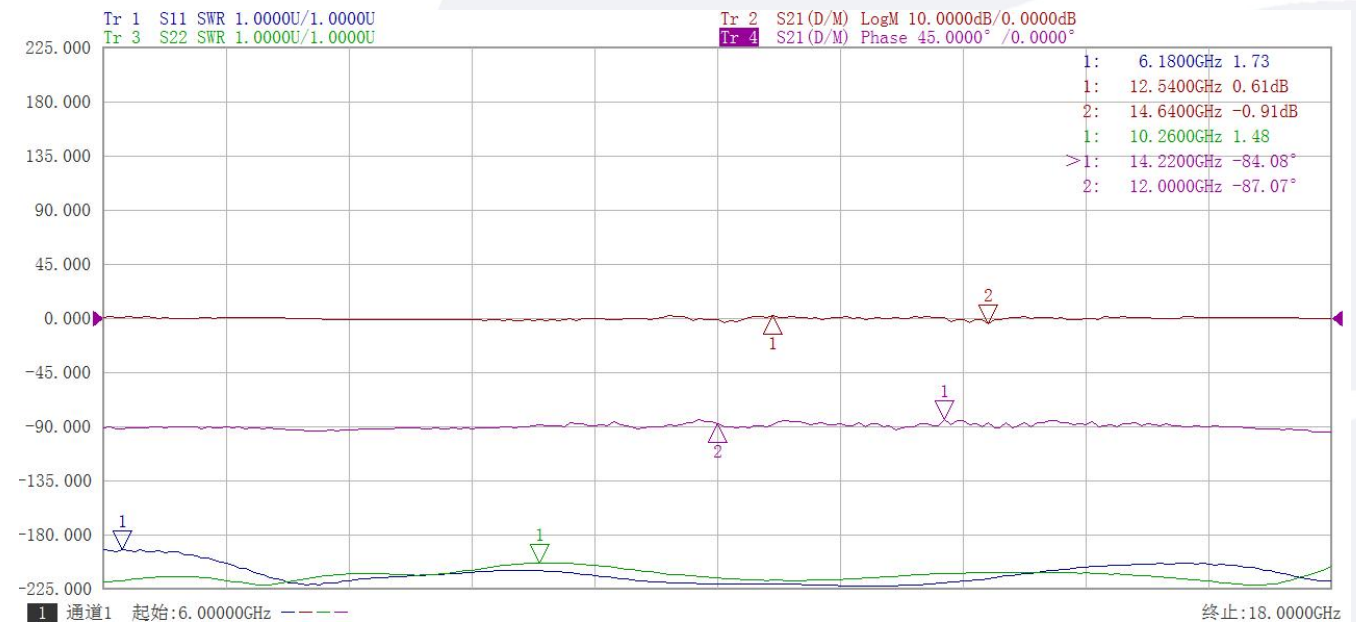


Typical Performance Data:

5) 45°

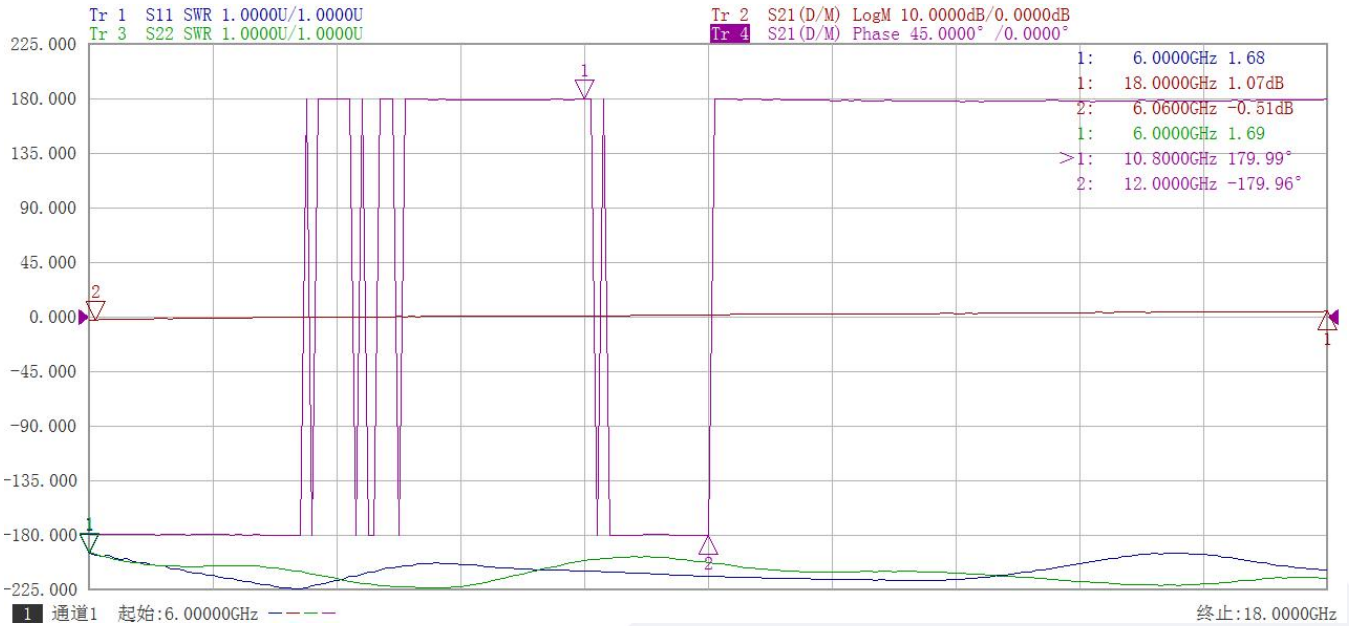


6) 90°



Typical Performance Data:

7) 180°



8) 354.375°

