

Model:TLDA0.1G18G-63-7

Digital Attenuator

0.1-18 GHz, 7-Bit, 0.5 dB LSB, 63 dB Range

Feature:

- Ultra Wide Band: 0.1-18GHz
- 7-Bit, 0.5 dB LSB, 63 dB Range
- Low Insertion Loss
- High Attenuator Accuracy

Electrical Specifications:

Parameter	Min.	Typ.	Max.	Units
Frequency range	0.1-18			GHz
Insertion Loss		4.5		dB
Attenuation Range	63			dB
Control Bit TTL	7			Bit
Attenuation Step	0.5			dB
Switch Speed	50			ns
Input VSWR		2.2		:1
Output VSWR		2.2		:1
Input Max Power	24			dBm
DC Voltage	+5			V DC
DC Supply Current		20		mA
Impedance	50			Ohms

Mechanical Specifications:

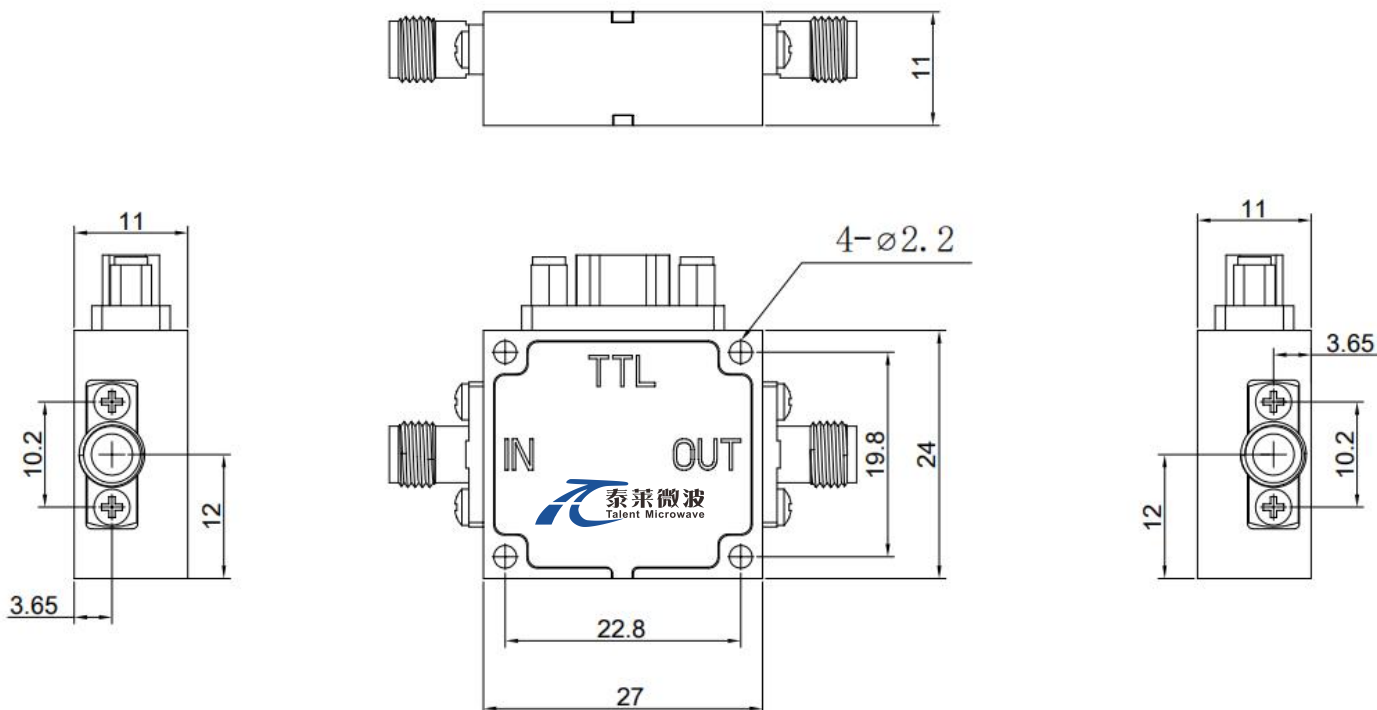
Parameter	Value	Units
Input /Output Connector	SMA Female	
DC and control interface	J30J-9ZKP	
尺寸Size	27*24*11	mm
Weight	/	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+5V ($\pm 5\%$)
RF Input Power	24 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit: mm(Inches)



Truth Table

TTL Control Input							Signal Path State
V1	V2	V3	V4	V5	V6	V7	
0	0	0	0	0	0	0	0dB
1	0	0	0	0	0	0	0.5dB
0	1	0	0	0	0	0	1dB
0	0	1	0	0	0	0	2dB
0	0	0	1	0	0	0	4dB
0	0	0	0	1	0	0	8dB
0	0	0	0	0	1	0	16dB
1	1	1	1	1	1	0	31.5dB
1	1	1	1	1	1	1	63dB

Note: Control to 0/+5V control, +5V is 1

J30J-9ZKP	
Pin#	Function
1	V1
2	V2
3	V3
4	V4
5	V5
6	V6
7	V7
8	+5V
9	GND

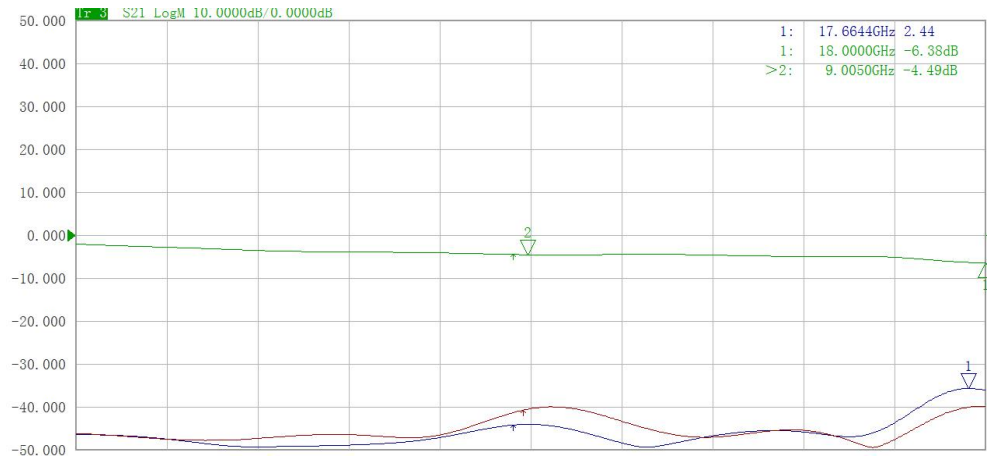
Environmental Conditions:

Parameter	Min.	Typ.	Max.	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			

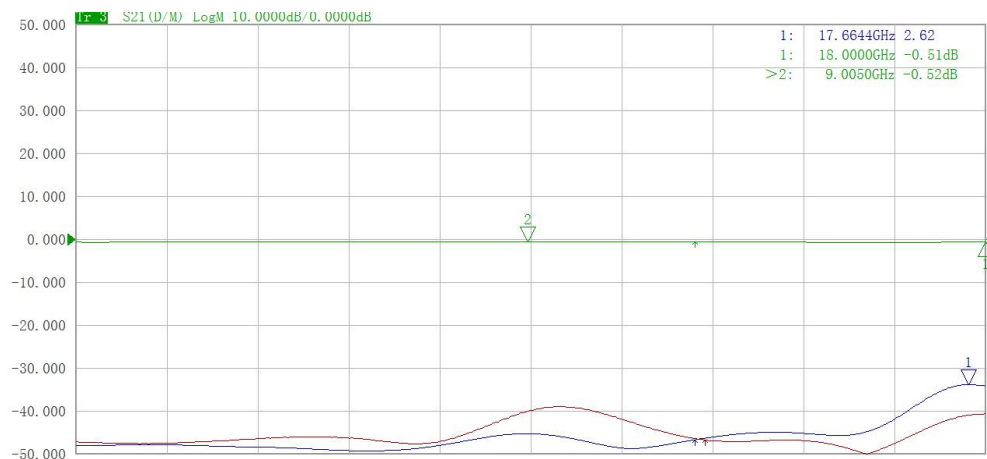
Ordering Information:

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

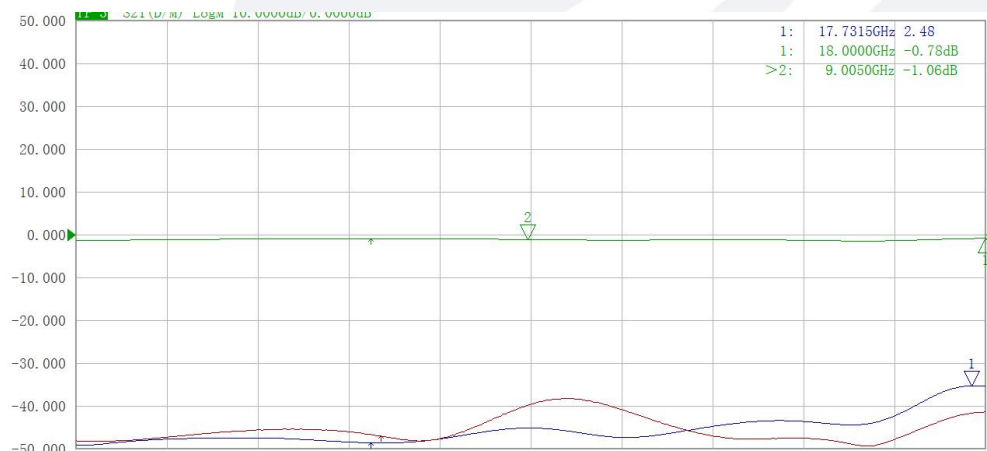
Typical Performance Data:



0dB attenuation

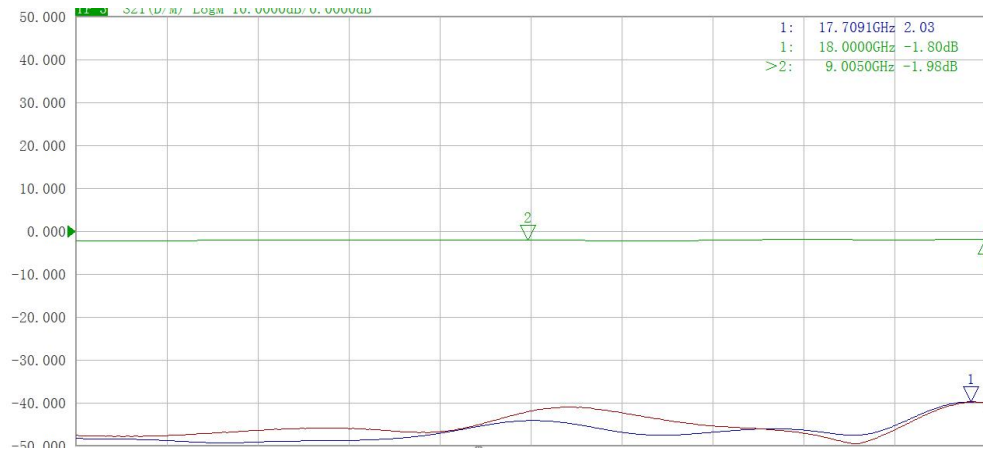


0.5dB attenuation

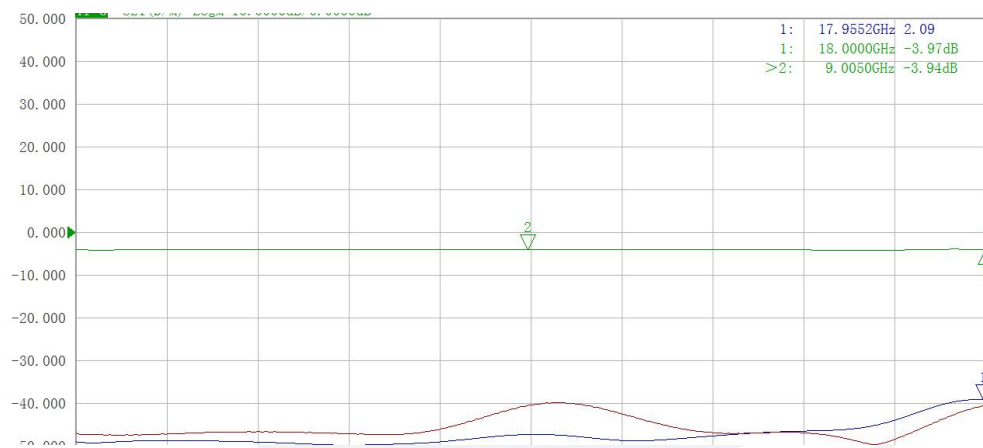


1dB attenuation

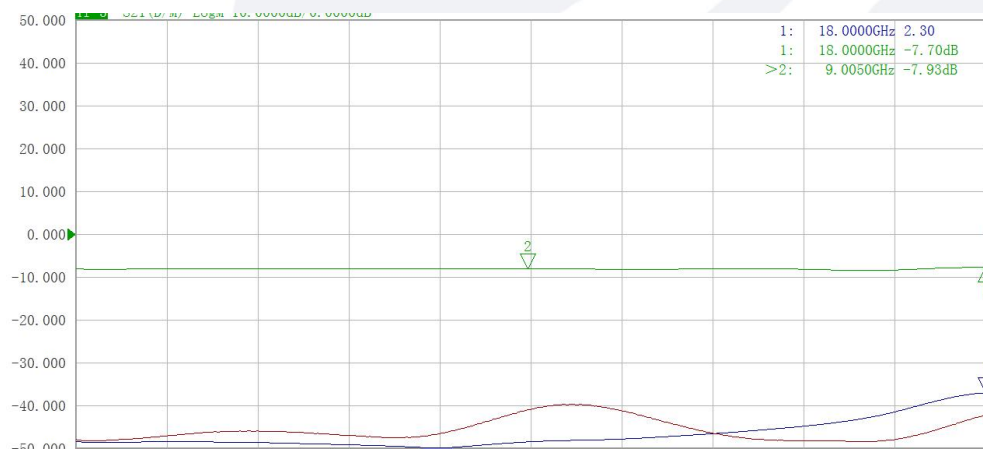
典型曲线 Typical Performance Data:



2dB attenuation

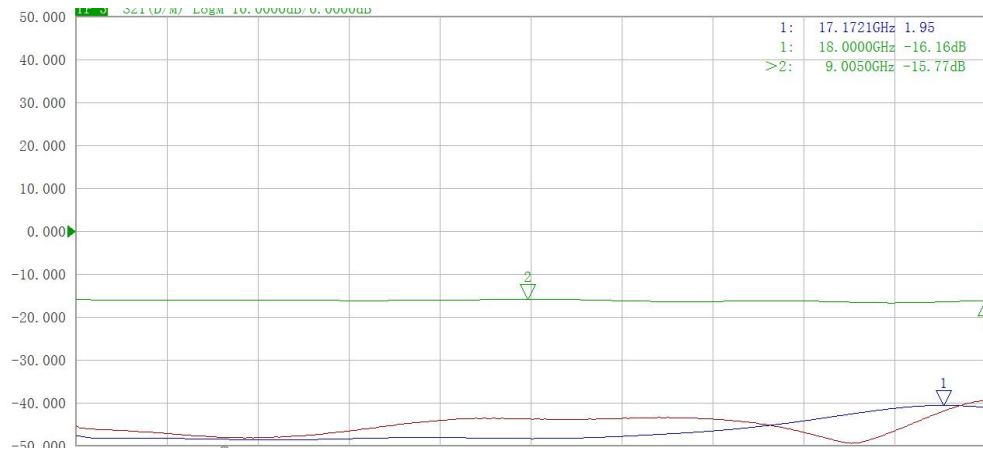


4dB attenuation

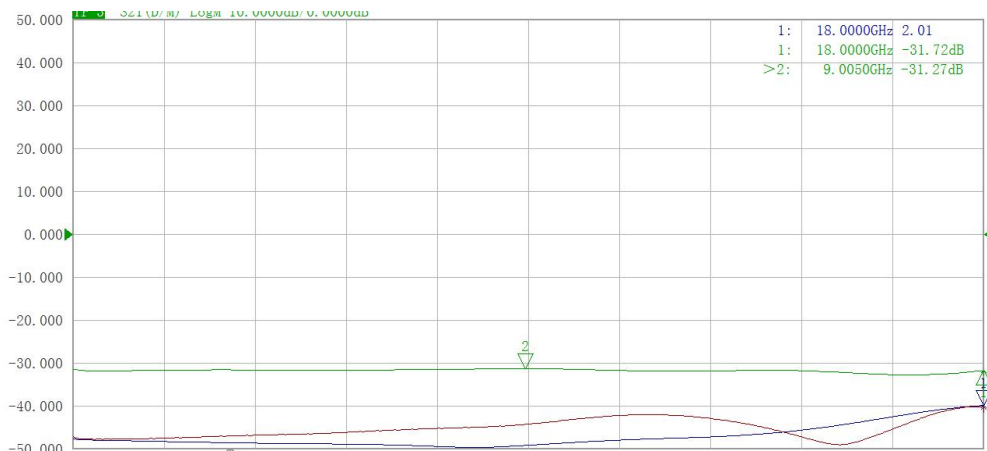


8dB attenuation

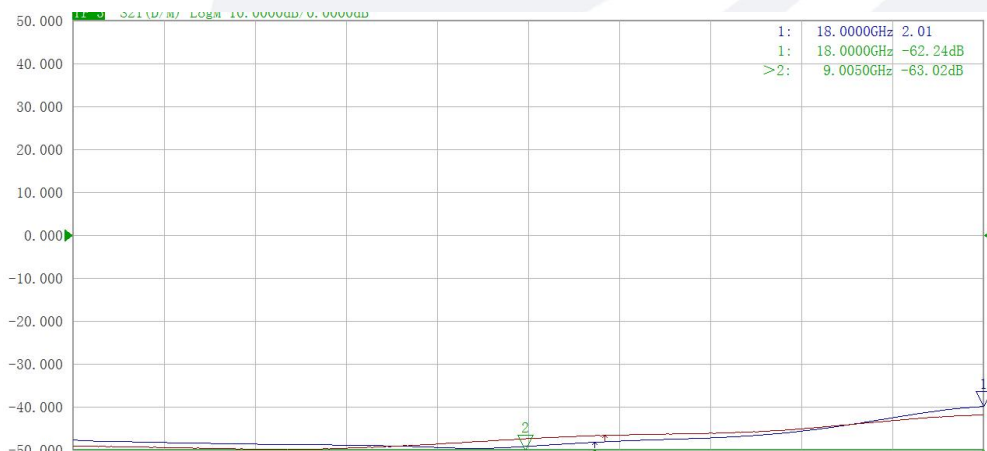
典型曲线 Typical Performance Data:



16dB attenuation



31.5dB attenuation



63dB attenuation