

**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

**电气特性 Electrical Specifications:**

参数Parameter	Min.	Typ.	Max.	单位Units
频率范围 Frequency range	0.1-18			GHz
插损 Insertion Loss		4.5		dB
衰减范围 Attenuation Range	63			dB
控制位数 Control Bit TTL	7			Bit
衰减步进 Attenuation Step	0.5			dB
切换速度 Switch Speed	50			ns
输入驻波 Input VSWR		2.2		:1
输出驻波 Output VSWR		2.2		:1
最大输入功率 Input Max Power	24			dBm
直流电压 DC Voltage	+5			V DC
直流电流 DC Supply Current		20		mA
阻抗 Impedance	50			Ohms

**机械特性 Mechanical Specifications:**

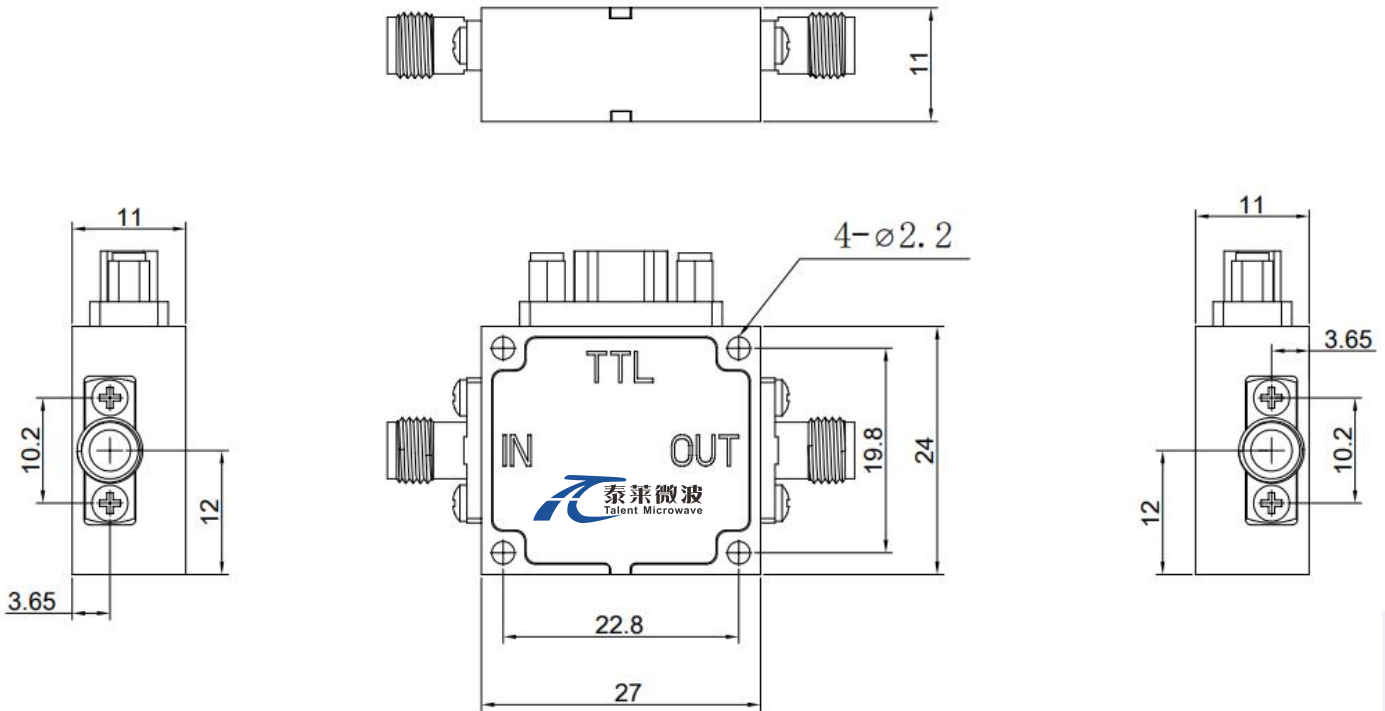
参数Parameter	指标 Value	单位Units
输入输出接口 Input /Output Connector	SMA Female	
DC和控制接口 DC and control interface	J30J-9ZKP	
尺寸 Size	27*24*11	mm
重量 Weight	/	g

**绝对最大值 Absolute Maximum Ratings:**

参数Parameter	指标 Value
供电偏置电压 Supply Bias Voltage	+5V (±5%)
输入功率 RF Input Power	24 dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V

外形尺寸Outline Drawing:

Unit: mm(Inches)



真值表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

注：控制为0/+5V控制，+5V为1

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

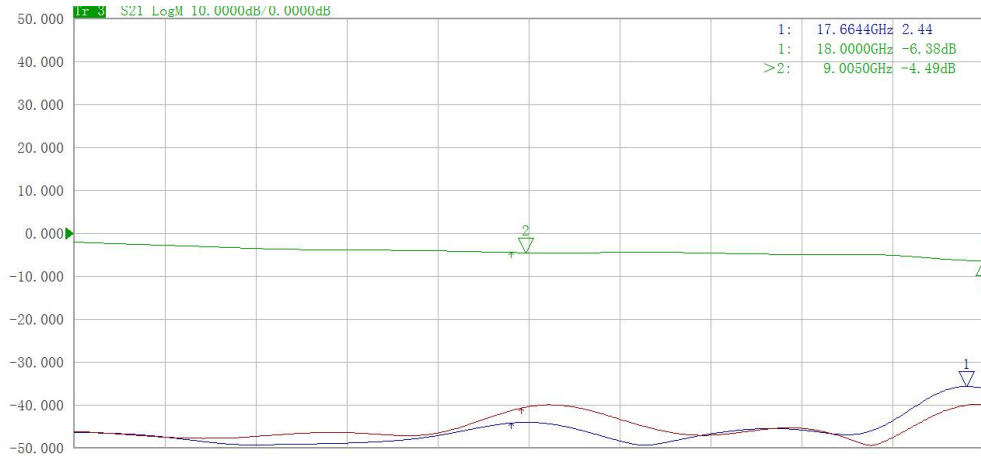
### 温度环境 Environmental Conditions:

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

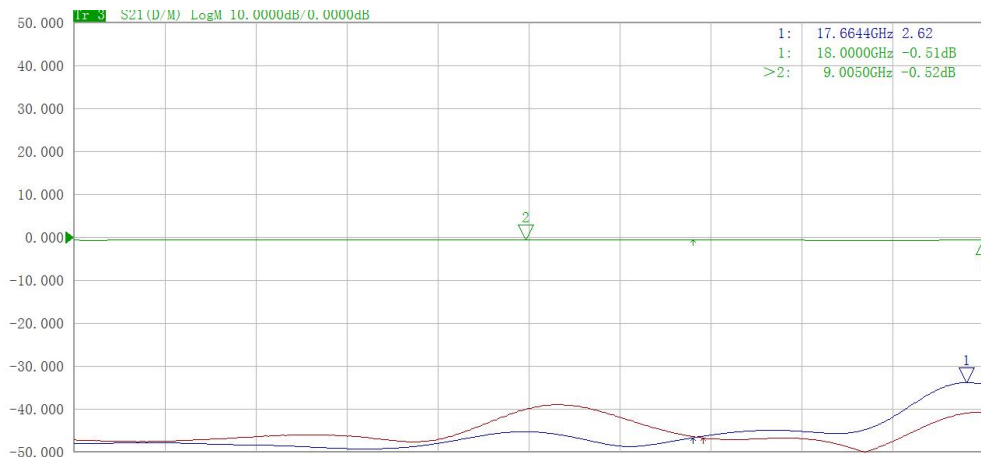
### 订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号Revision
TLDP-6G18G-360-6	6-Bit Digital Phase Shifter,6-18GHz,SMA	Rev.1.1

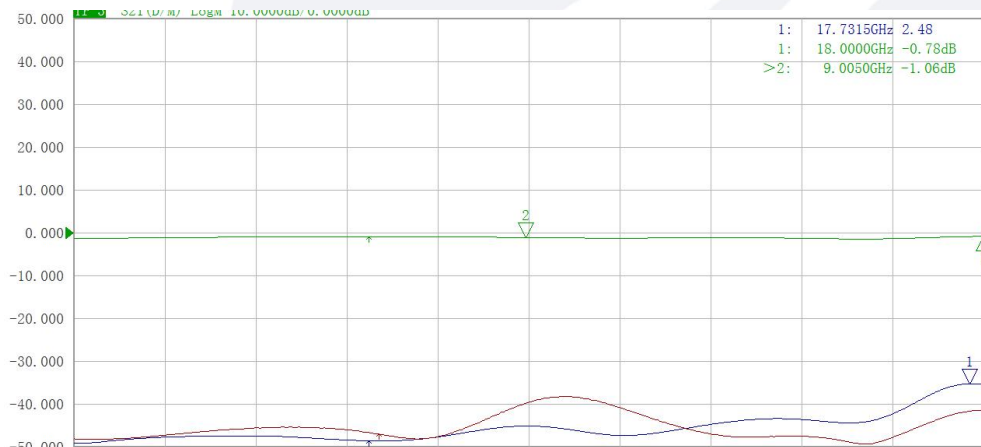
典型曲线 Typical Performance Data:



0dB衰减态

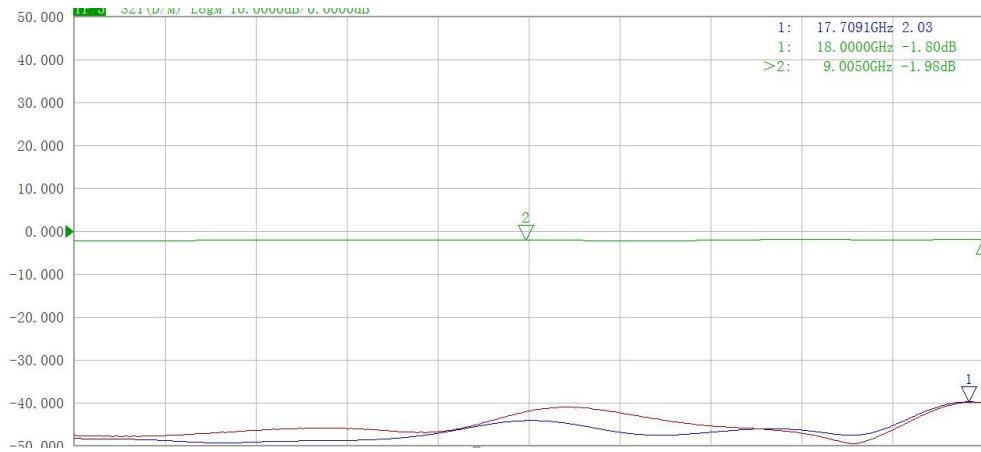


0.5dB attenuation 衰减态

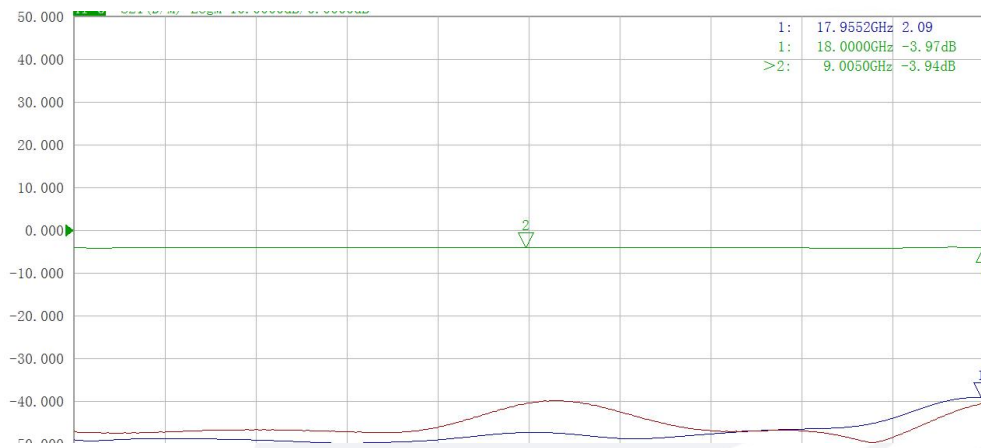


1dB attenuation 衰减态

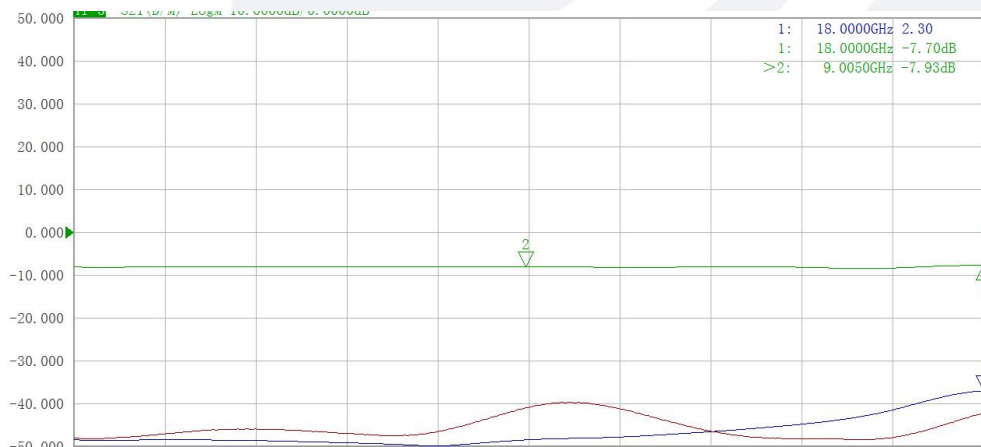
典型曲线 Typical Performance Data:



2dB attenuation 衰减态

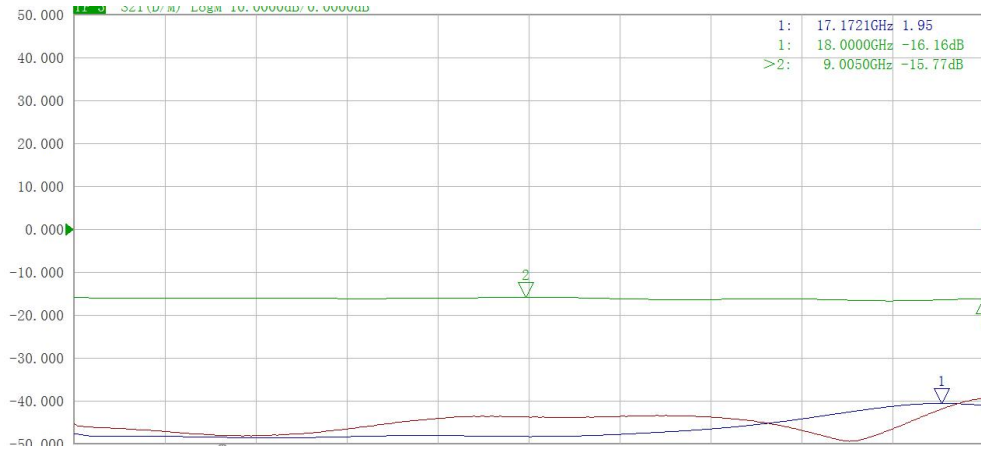


4dB attenuation 衰减态

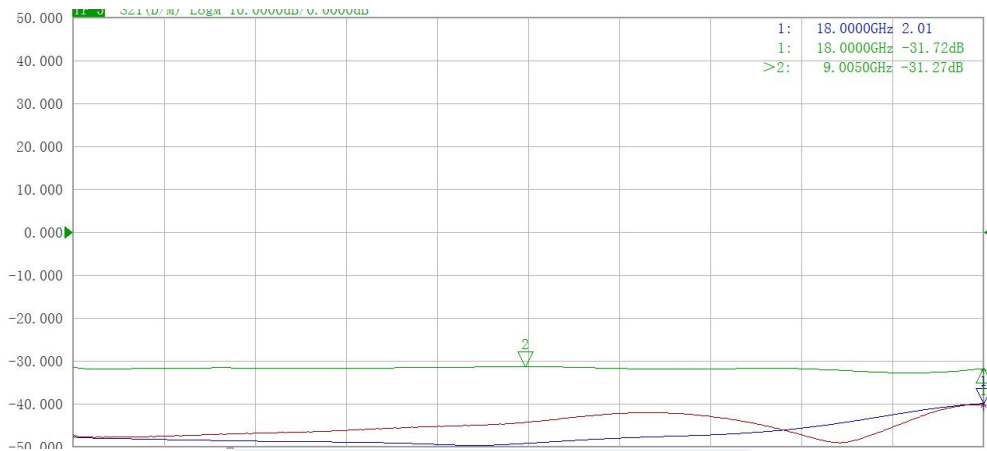


8dB attenuation 衰减态

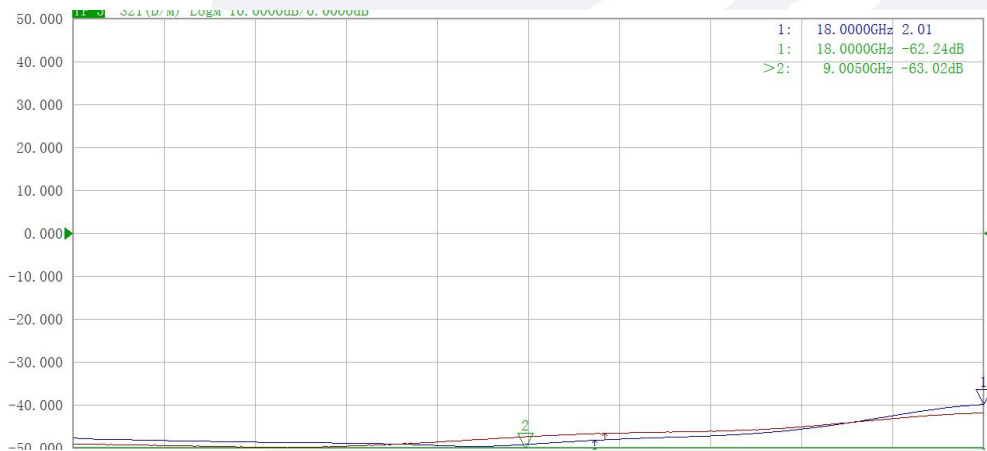
典型曲线 Typical Performance Data:



16dB attenuation 衰减态



31.5dB attenuation 衰减态



63dB attenuation 衰减态