泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Absorptive,Broadband MMIC Switch

0.1-67GHz/SP4T/1.85mm Female

Model: TLSP4T0.1G67GA

The TLSP4T0.1G67GA is an absorptive MMIC diode based switch with 2 TTL driver that operates between 0.1 and 67 GHz. The SP4T switch offers 45 dB port-to-port isolation with a typical switching speed of 50 nanoseconds. The input and output connectors of the switch are 1.85mm female.

Features:

- Frequency range: 0.1-67GHz
- Insertion Loss: 7.5dB Typ
- Power Handling: 23dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	0.1		67	GHz
插损 Insertion Loss		7.5		dB
隔离 Isolation	45			dB
切换速度 Switch Speed		50	100	ns
输入驻波 Input VSWR		2.5		:1
输出驻波 Output VSWR		2.5		:1
耐功率 Power Handling			23	dBm
输入P1dB Input P1dB		20		dBm
直流电压 DC Supply Voltage		12		V DC
直流电流 DC Supply Current		120		mA
开关类型 Switch type	Absorptive			
阻抗 Impedance	50			Ohms

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绝对最大值 Absolute Maximum Ratings :

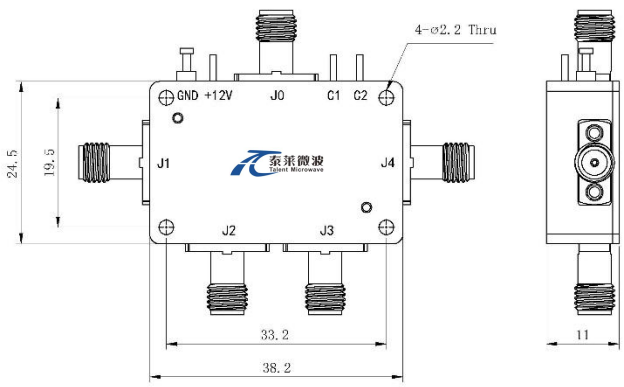
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	±5%	V
射频输入功率 RF Input Power	23	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

机械特性 Mechanical Specifications:

描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	1.85mm Female/1.85mm Female	
直流控制接口 Control Bias Connector	Solder Pin	
尺寸 Size	33.2*24.5*11	mm

外形图 Outline Drawing:

Unit:mm



真值表 Truth Table		
TTL Control Input		Signal Path State
C1	C2	
0	0	J0-J1
0	1	J0-J2
1	0	J0-J3
1	1	J0-J4

TTL Control Voltages &VDD	
Stage	Bias Condition
VDD	+12V (±5%)
Low（0）	0 to 0.8Vdc
High（1）	+3.3 to +5.0Vdc

1.Dimensions are in mm [inches]
2.Tolerances: Outline drawing ±0.2 [0.008] Hole ±0.2 [0.008]
NOTE: ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME

ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			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			

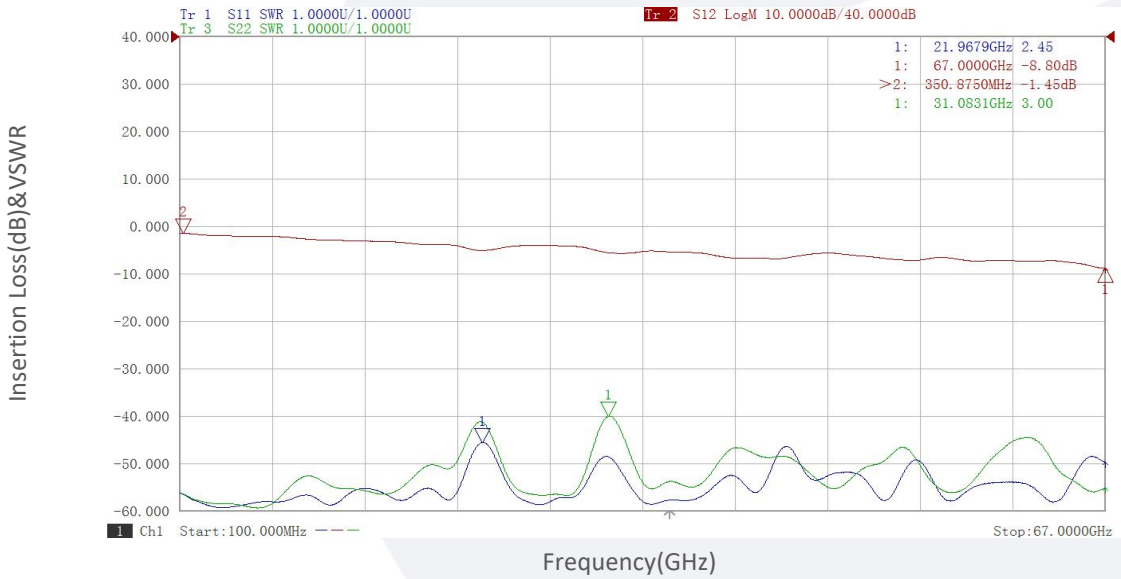
订货信息 Ordering Information:

标准型号 Base Number	描述 Description	版本号 Revision
TLSP4T0.1G67GA	Absorptive,Broadband MMIC Switch 0.1-67GHz, SP4T, 1.85mm Female	Rev.1.0

典型曲线 Typical Performance Data:

Insertion Loss&VSWR vs Frequency

J0-J1:



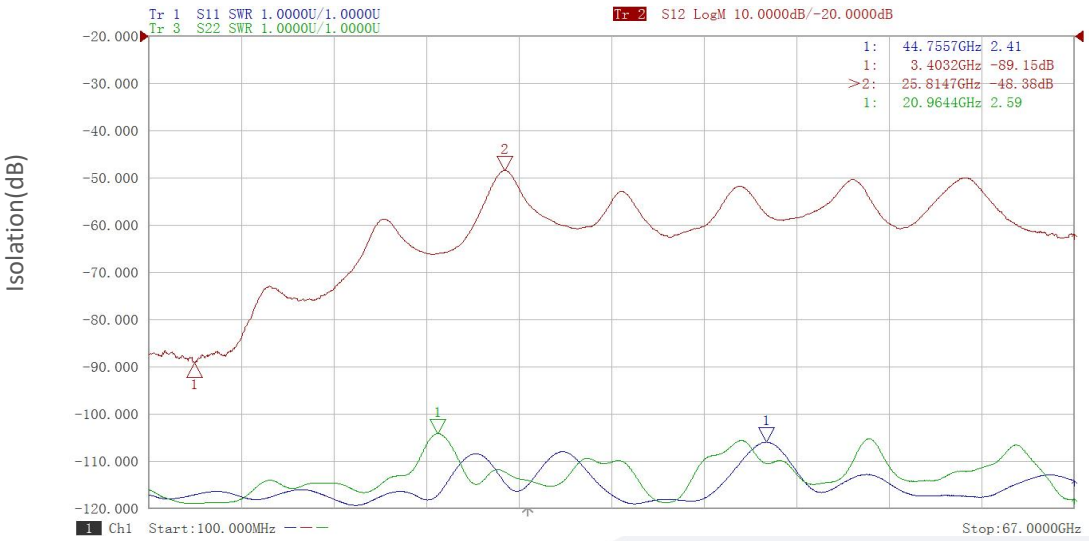
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

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典型曲线 Typical Performance Data:

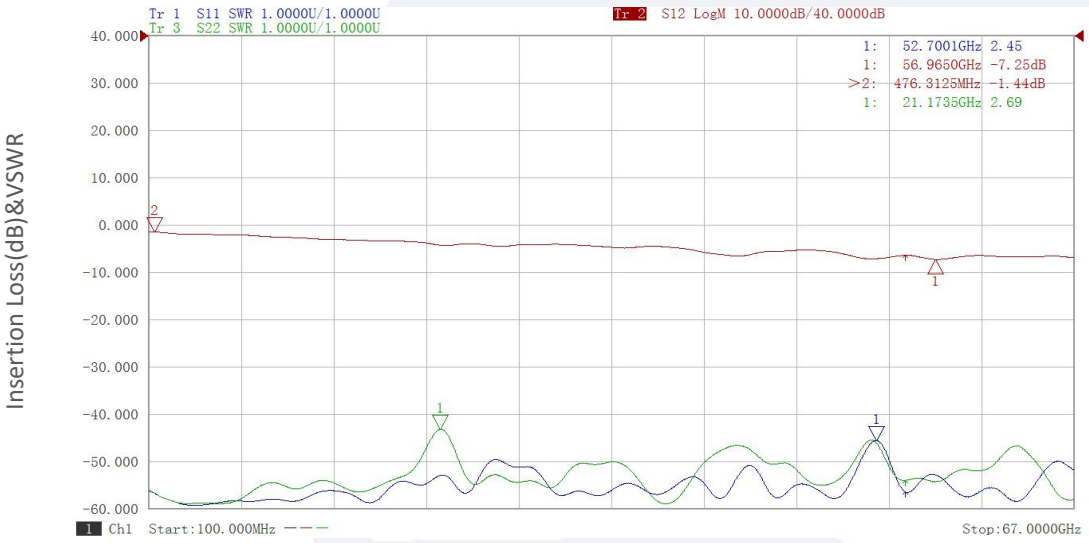
Isolation vs Frequency

J0-J1:



Insertion Loss&VSWR vs Frequency

J0-J2:



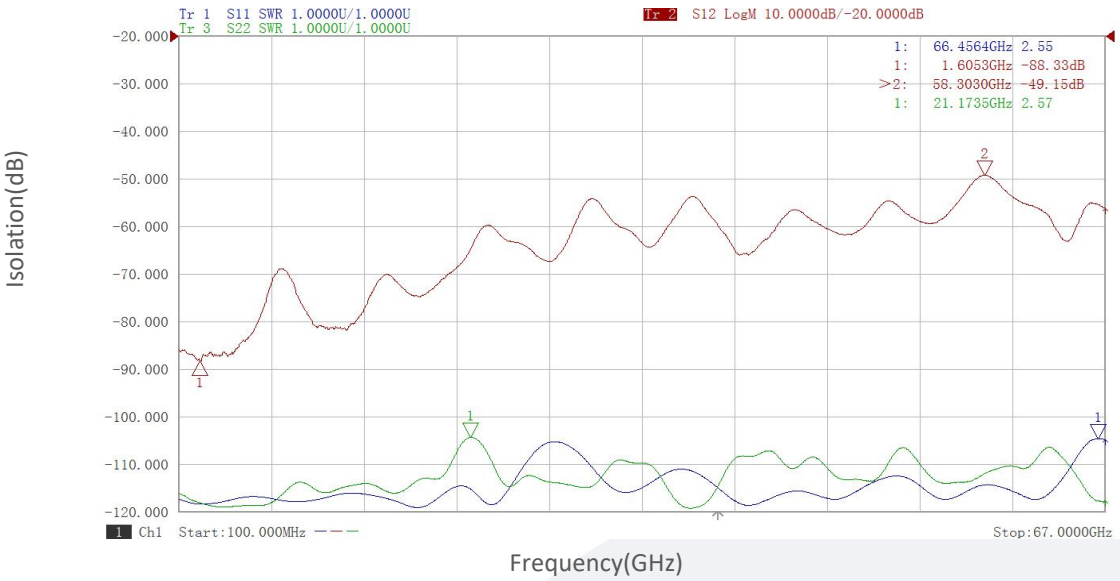
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典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J2:

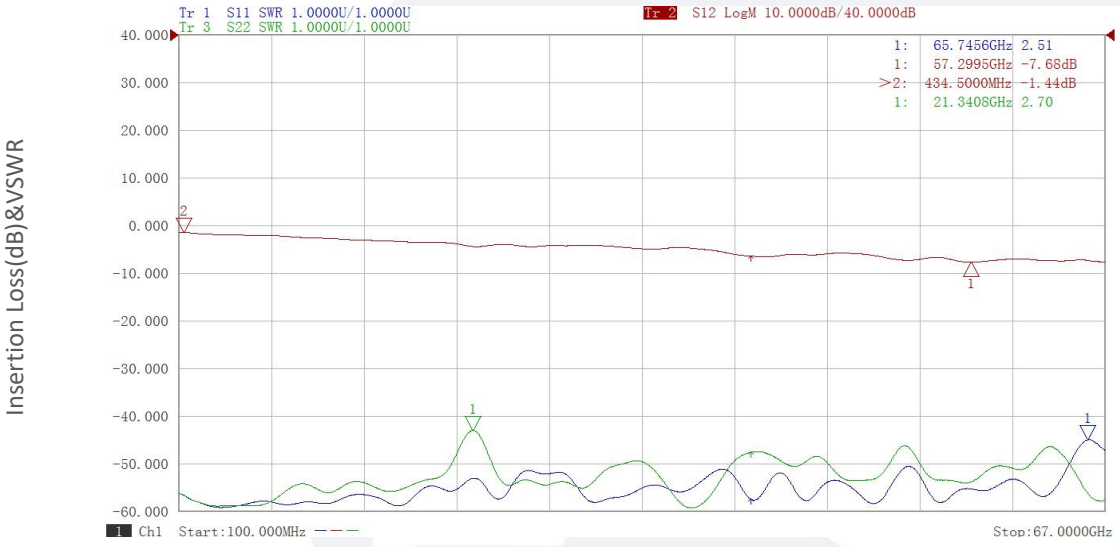


Isolation(dB)

Frequency(GHz)

Insertion Loss&VSWR vs Frequency

J0-J3:



Insertion Loss(dB)&VSWR

Frequency(GHz)

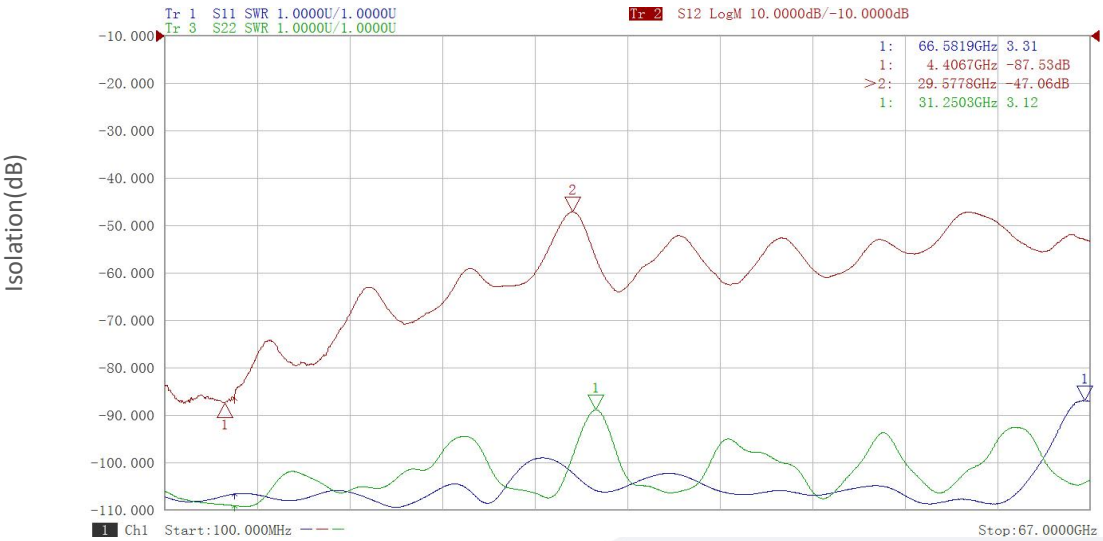
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典型曲线 Typical Performance Data:

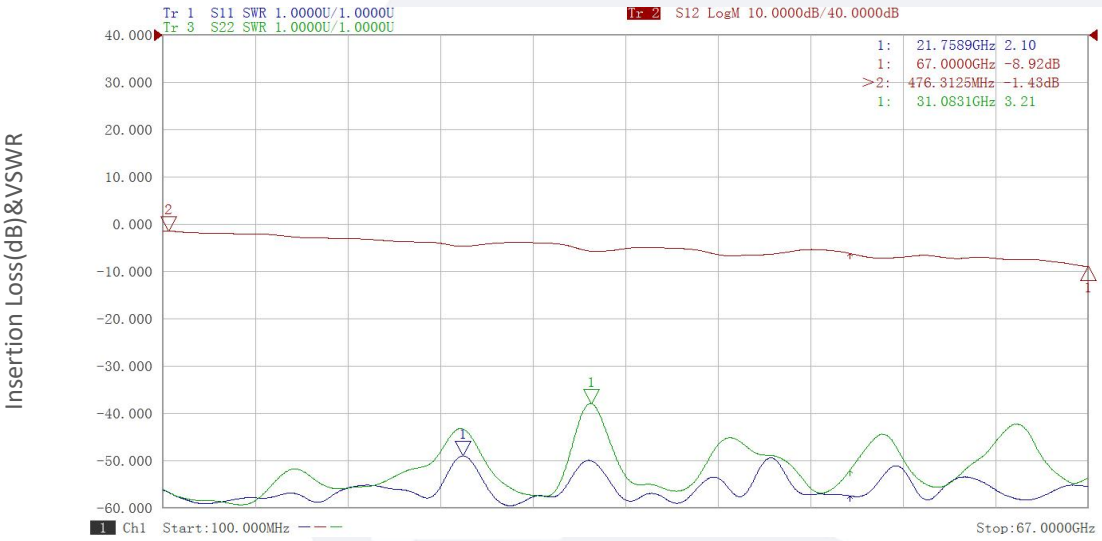
Isolation vs Frequency

J0-J3:



Insertion Loss&VSWR vs Frequency

J0-J4:



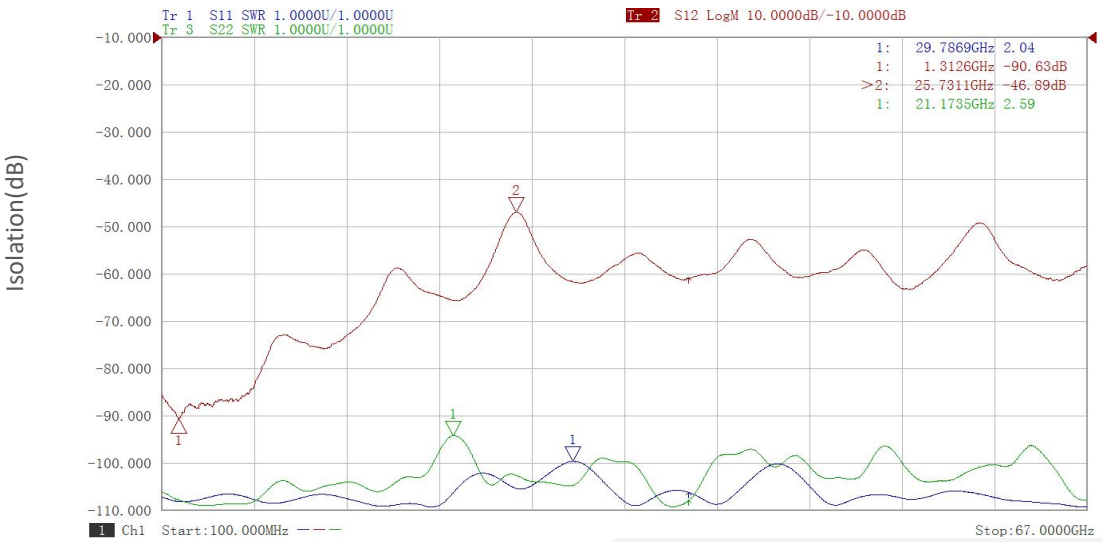
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典型曲线 Typical Performance Data:

Isolation vs Frequency

J0-J4:



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