

## Absorptive, Broadband PIN Switch

### 0.5-40 GHz/SPDT/ 2.92mm Female

**Model: TLSPDT0.5G40GA**

The TLSPDT0.5G40GA is an absorptive PIN diode based switch with a TTL driver that operates between 0.5 and 40 GHz. The SPDT switch offers 75 dB port-to-port isolation with a typical switching speed of 60 ns. The input and output connectors of the switch are 2.92 mm female.

#### Features:

- Ultra Wide Band: 0.5-40GHz
- Low Insertion Loss: 3.0 dB
- Power Handling : 23 dBm
- 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	0.5-40			GHz
插损 Insertion Loss		3	5	dB
隔离 Isolation	55	75		dB
切换速度 Switch Speed		60		ns
输入驻波 Input VSWR			2.8	:1
输出驻波 Output VSWR			2.8	:1
耐功率 Power Handling			23	dBm
直流电压 DC Voltage		+/-5		V DC
控制电平 Control Logic TTL		0/+5		V DC
直流电流 DC Supply Current		100		mA
开关类型 Switch type	Absorptive			
阻抗 Impedance	50			Ohms

## 绝对最大值 Absolute Maximum Ratings :

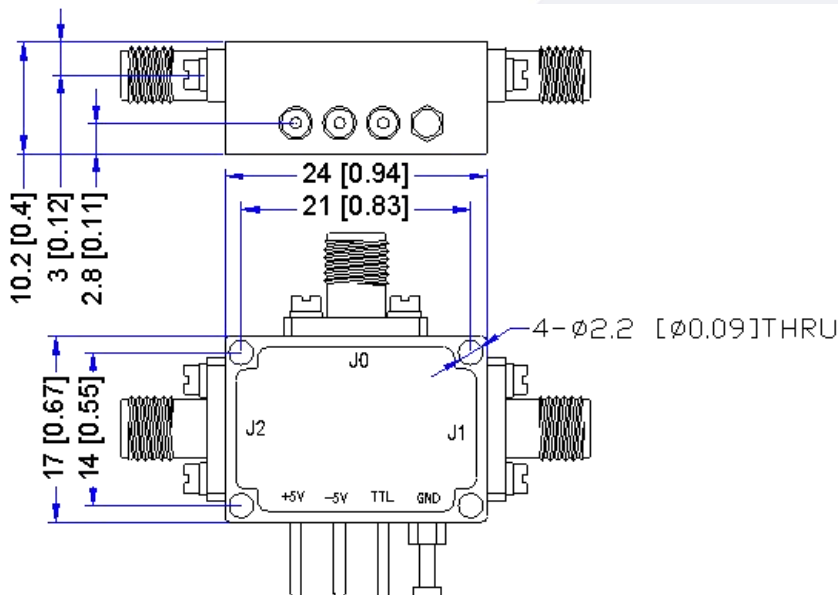
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	±5%	V
射频输入功率 RF Input Power	23	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

## 机械特性 Mechanical Specifications:

描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	2.92mm Female/2.92mm Female	
直流控制接口 Control Bias	Solder Pin	
尺寸 Size	27*17*10.2	mm

## 外形图 Outline Drawing:

Unit:mm



真值表 Truth Table

TTL Control Input	Signal Path State
TTL	
1	J0-J1
0	J0-J2



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

## 温度环境 Environmental Conditions:

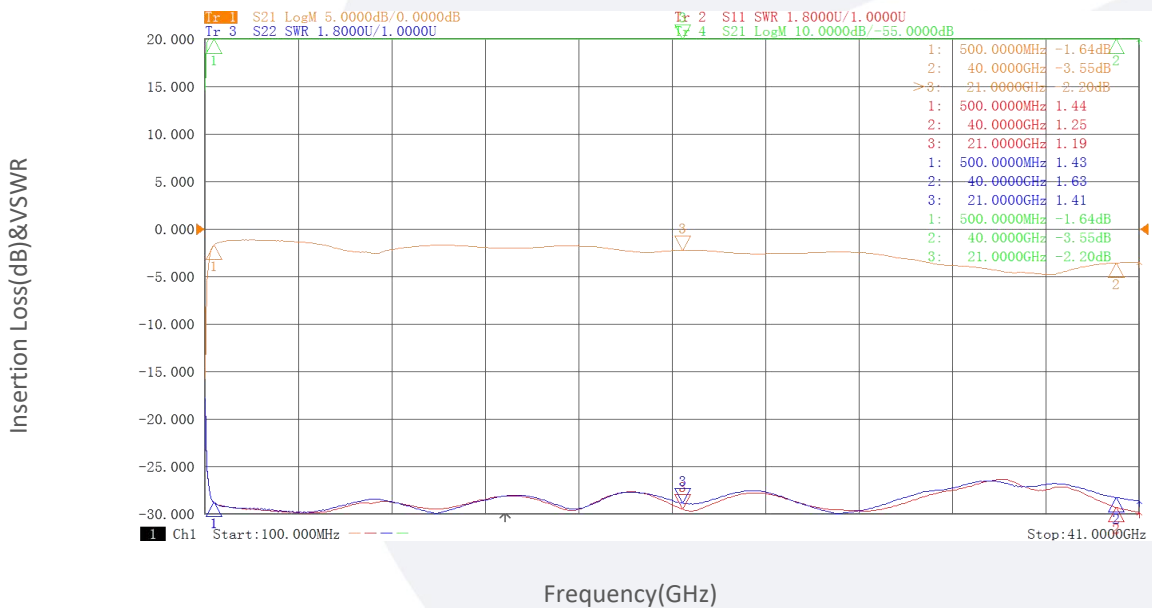
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TLSPDT0.5G40GA	Absorptive, Broadband PIN Switch 0.5-40 GHz, SPDT, 2.92mm	Rev.1.1

## 典型曲线 Typical Performance Data:

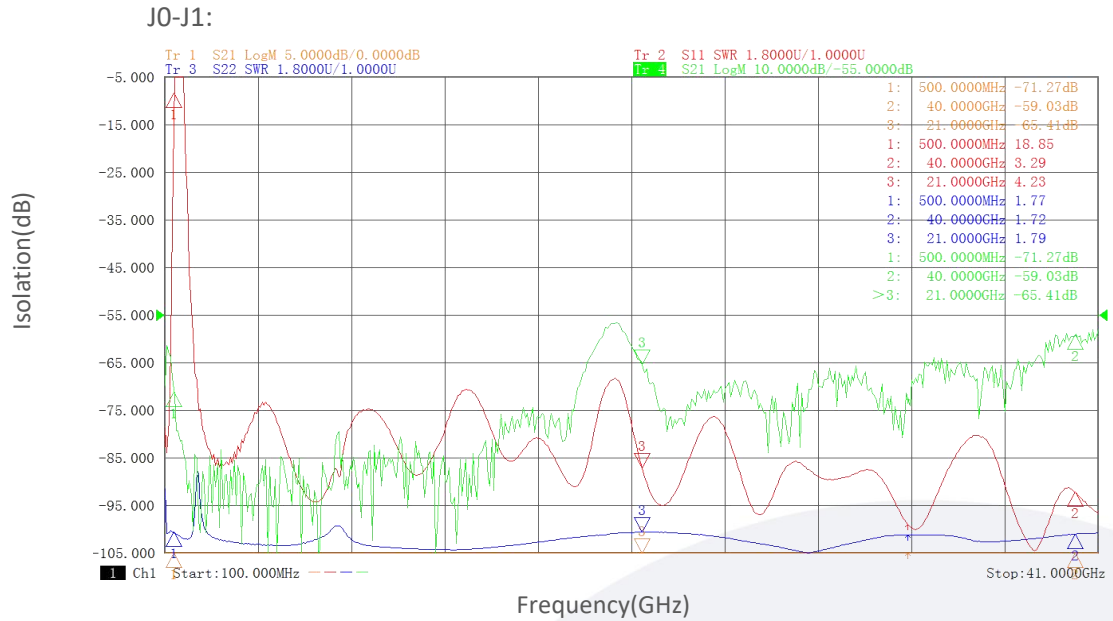
### Insertion Loss & VSWR vs Frequency



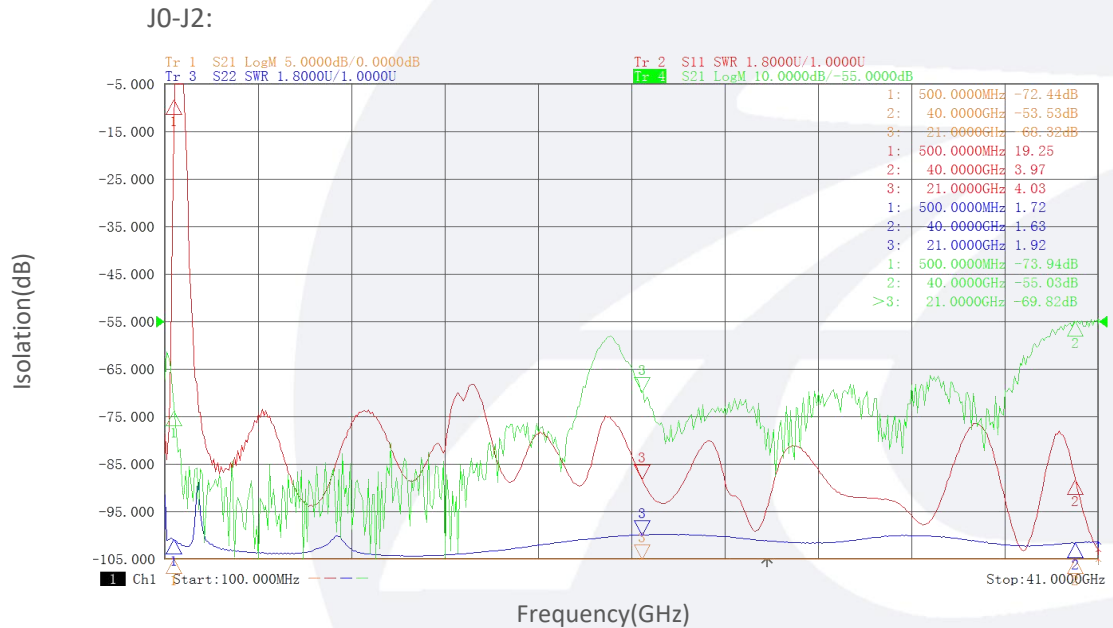
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Isolation vs Frequency



Isolation vs Frequency



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