泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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Absorptive,Broadband PIN Switch

0.1-18 GHz/SPDT/SMA Female

Model: TLSPDT1G18GA

The TLSPDT1G18GA is an absorptive PIN diode based switch with a TTL driver that operates between 1 and 18 GHz. The SPDT switch offers 70 dB port-to-port isolation with a typical switching speed of 50 ns. The input and output connectors of the switch are SMA female.

Features:

- Frequency range: 1-18 GHz
- Low Insertion Loss: 2.5 dB Typ
- Power Handling : 27 dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1		18	GHz
Insertion Loss		2.5	4.5	dB
Isolation		70		dB
Switch Speed		50	100	ns
Input VSWR		1.5		:1
Output VSWR		1.5		:1
Power Handling			27	dBm
DC Voltage		+5		V DC
DC Supply Current		50		mA
Control Logic TTL		0/+5		V DC
Switch type	Absorptive			
Impedance	50			Ohms

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Absolute Maximum Ratings :

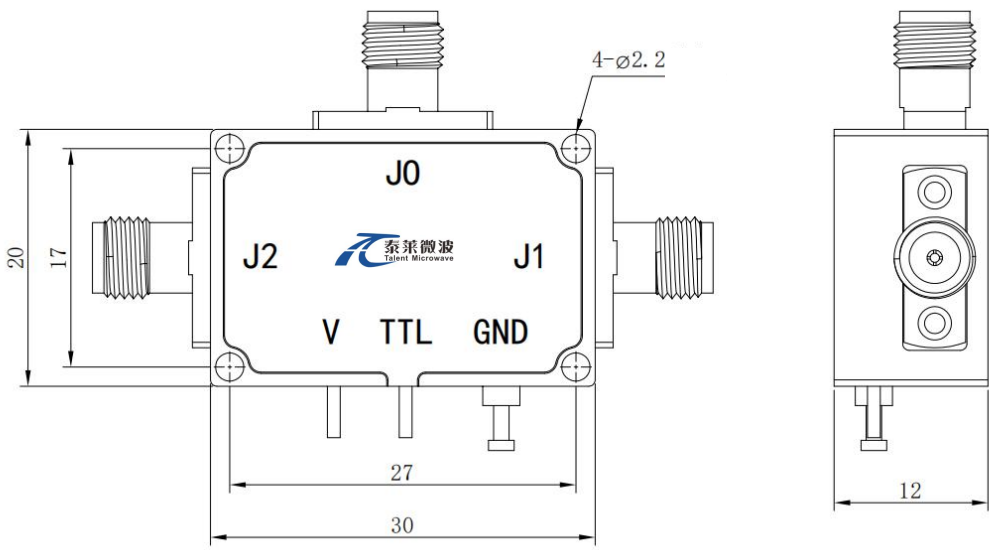
Description	Parameter	Units
Supply Bias Voltage	±5%	V
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	SMAmm Female/SMA Female	
Control Bias	Solder Pin	
Size	24*17*10.2	mm

Outline Drawing:

Unit:mm



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

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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	℃
Non-operating Temperature	-45		+85	℃
Relative humidity		95		%
Altitude	10,000			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			

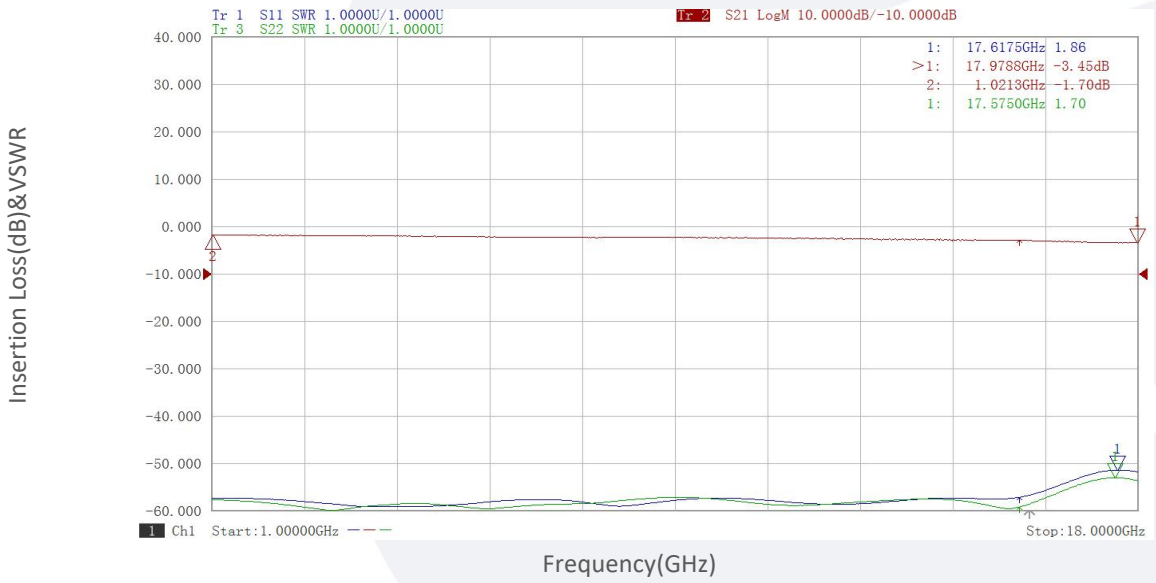
Ordering Information:

Base Number	Description	Revision
TLSPDT1G18GA	Absorptive,Broadband PIN Switch 1-18 GHz,SPDT,SMA	Rev.1.1

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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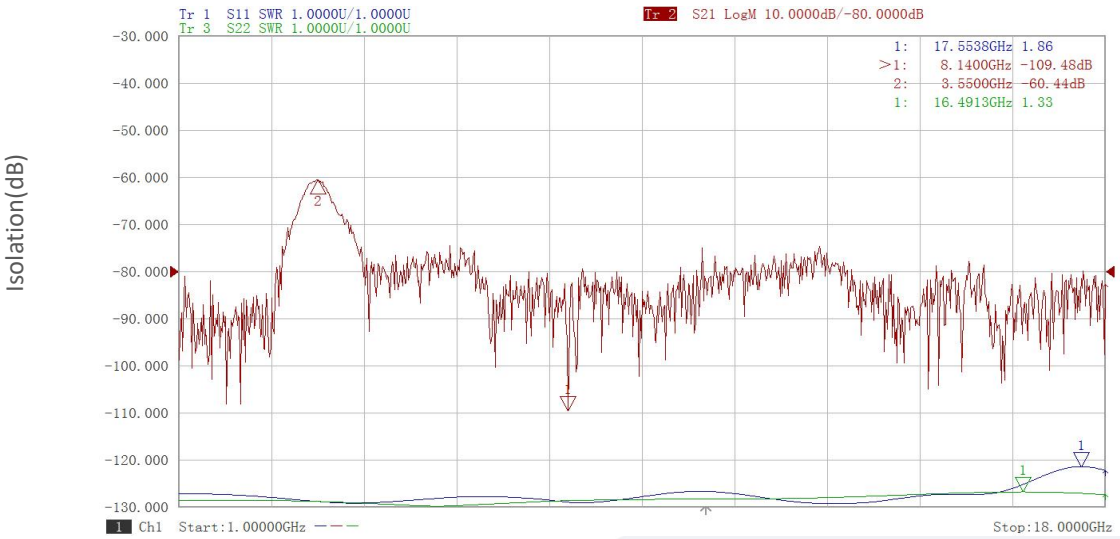
Typical Performance Data:

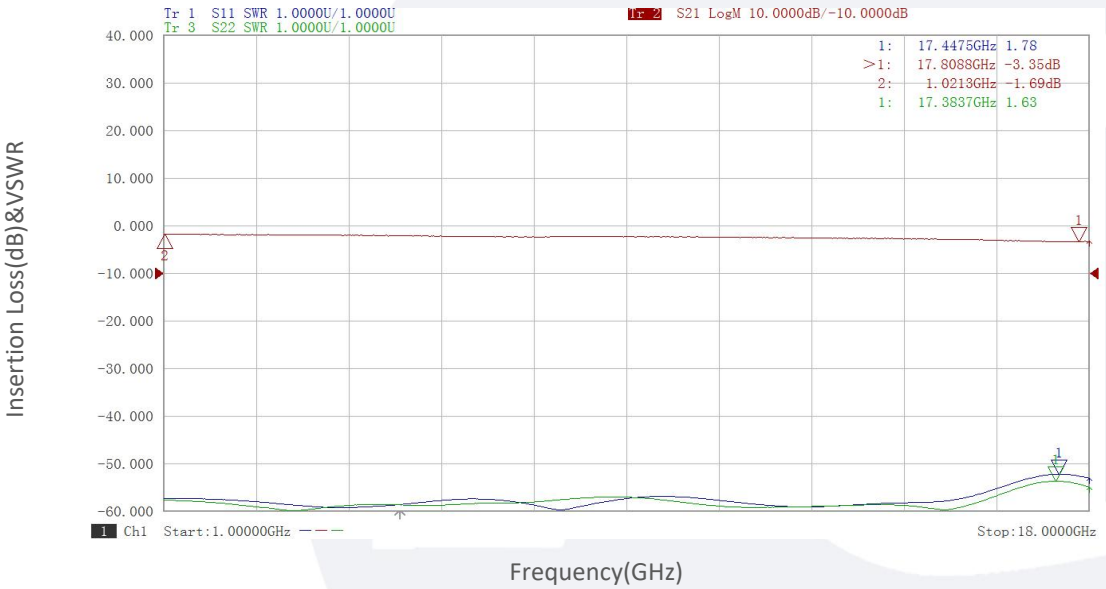
Isolation vs Frequency

J0-J1:



Insertion Loss&VSWR vs Frequency

J0-J2:



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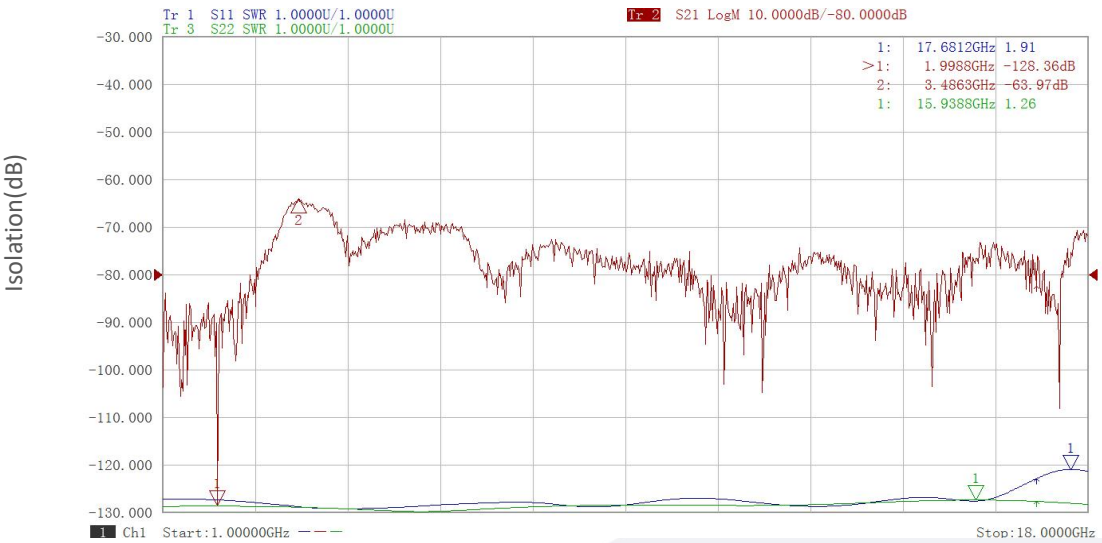
Typical Performance Data:

Isolation vs Frequency

J0-J2:



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