

Absorptive, Broadband PIN Switch

0.5-40GHz/SPDT/ 2.92mm Female

Model: TLSPDT0.5G40GA-2

The TLSPDT0.5G40GA-2 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:

- Frequency range: 0.5-40GHz
- Low Insertion Loss: 3.5 dB
- Power Handling : 23dBm
- High Isolation
- Switch Type: Absorptive
- Phase Matched

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.5-40			GHz
Insertion Loss		3.5	6	dB
Isolation	50	75		dB
Switch Speed		60		ns
Input VSWR		1.5	2.5	:1
Output VSWR		1.5	2.5	:1
Power Handling			23	dBm
DC Voltage		+/-5		V DC
Control Logic TTL		0/+5		V DC
DC Supply Current		30		mA
Switch type	Absorptive			
Impedance	50			Ohms

Absolute Maximum Ratings :

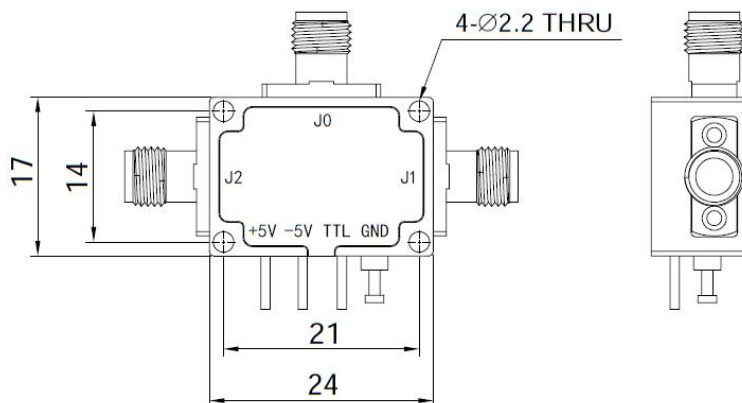
Description	Parameter	Units
Supply Bias Voltage	$\pm 5\%$	V
RF Input Power	23	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
Control Bias	Solder Pin	
Size	24*17*10.2	mm

Outline Drawing:

Unit:mm



Regulatory Compliance:



真值表 Truth Table

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

TTL Control Voltages &VDD

Stage	Bias Condition
VDD	+5V ($\pm 5\%$)
VEE	-5V ($\pm 5\%$)
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.

Environmental Conditions:

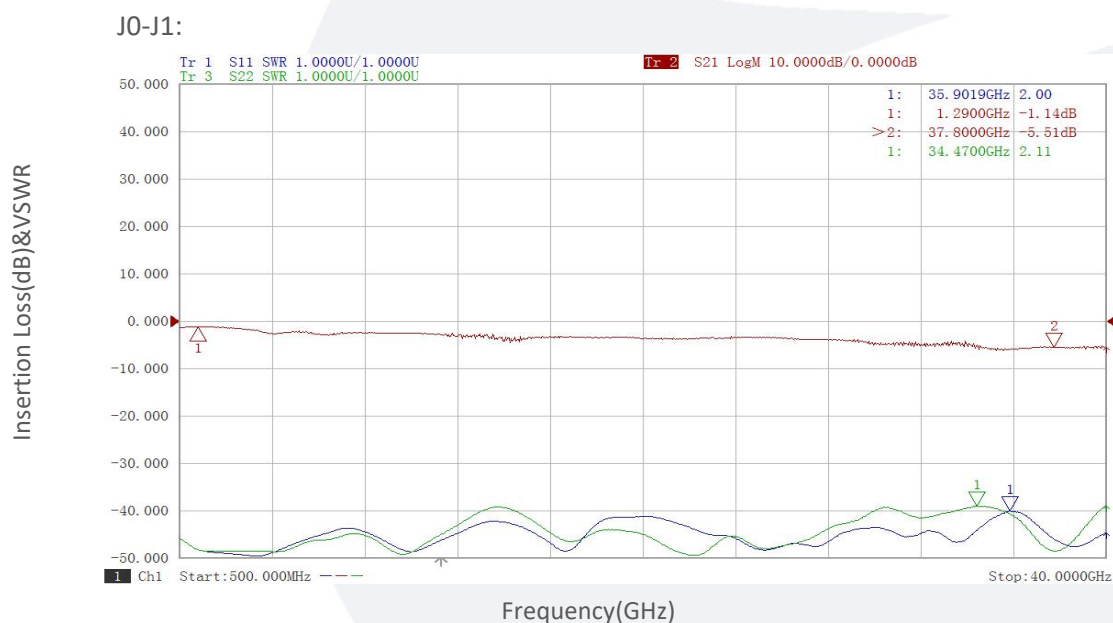
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLSPDT0.5G40GA-2	Absorptive,Broadband PIN Switch 0.5-40 GHz,SPDT,2.92mm	Rev.1.1

Typical Performance Data:

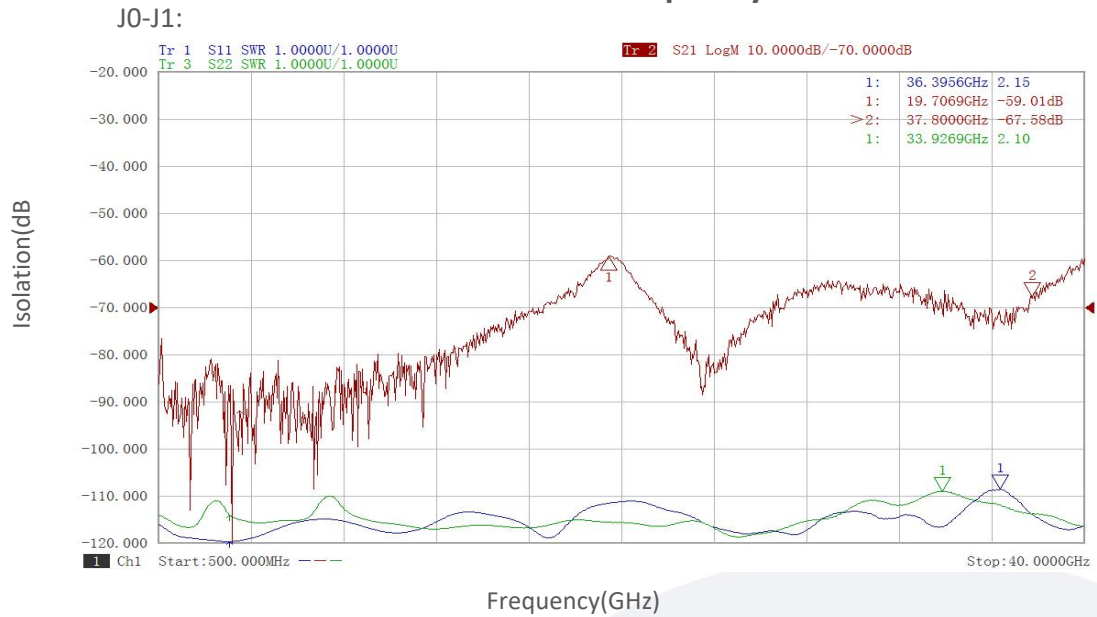
Insertion Loss & VSWR vs Frequency



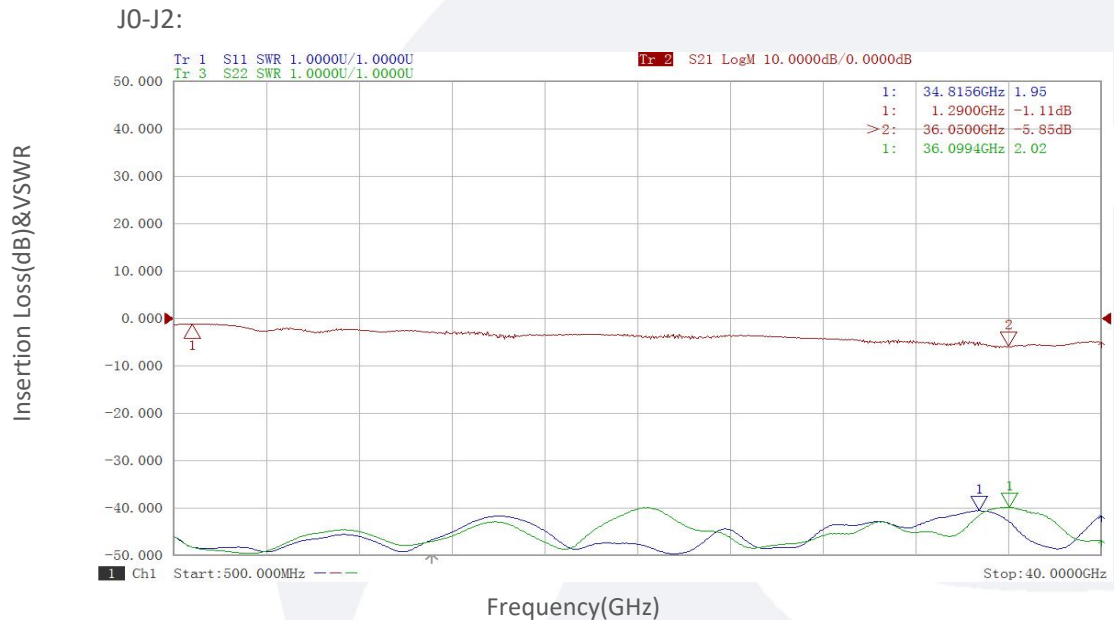
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



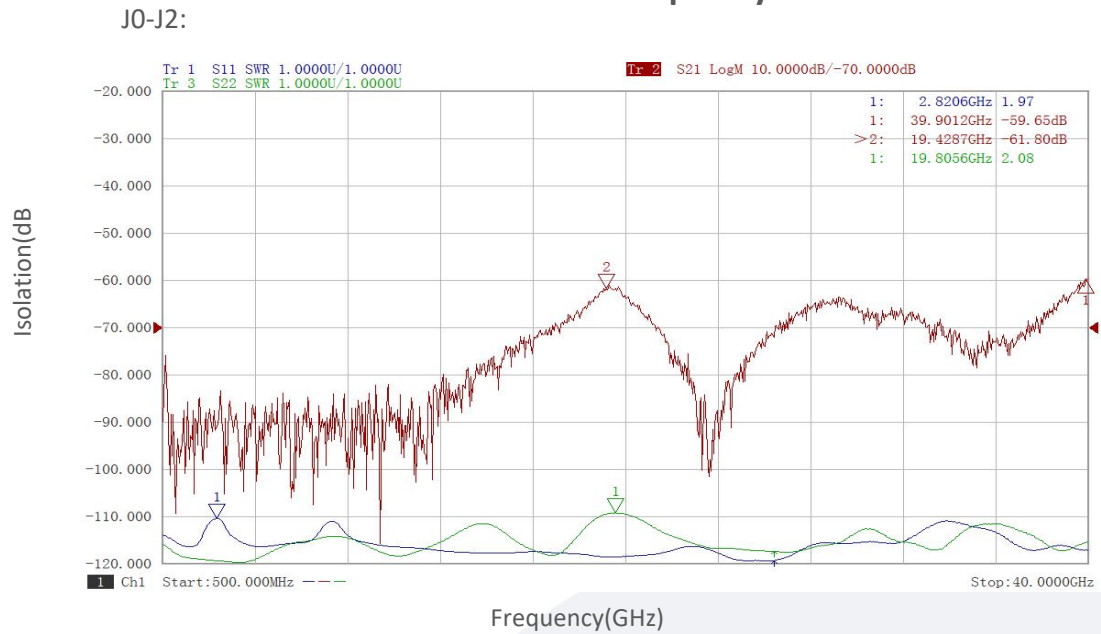
Insertion Loss & VSWR vs Frequency



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Typical Performance Data:

Isolation vs Frequency



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