

Absorptive, Broadband PIN Switch

0.5-40GHz/SP4T/2.92mm Female

Model: TLSP4T0.5G40GA-2

The TLSP4T0.5G40GA-2 is an absorptive PIN diode based switch with a TTL driver that operates between 0.5 and 40 GHz. The SP4T switch offers 70 dB port-to-port isolation with a typical switching speed of 100ns. The input and output connectors of the switch are 2.92 mm female.

Features:

- Frequency range: 0.5-40GHz
- Low Insertion Loss: 6.0 dB
- Power Handling : 25dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.5-40			GHz
Insertion Loss		6		dB
Isolation	60	70		dB
Switch Speed		100		ns
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
Power Handling			25	dBm
Control Logic TTL		0/+5		V DC
DC Voltage		+5		V
DC Supply Current		10		mA
Switch type	Absorptive			
Impedance	50			Ohms

Absolute Maximum Ratings :

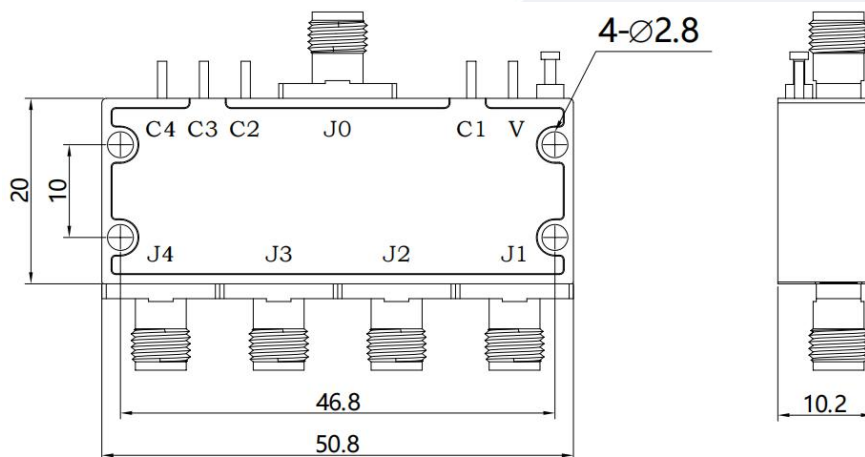
Description	Parameter	Units
Supply Bias Voltage	$\pm 5\%$	V
RF Input Power	25	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	2.92mm Female	
Control Bias	Solder Pin	
Size	50.8*20*10.2	mm

Outline Drawing:

Unit:mm



Regulatory Compliance:



Truth Table				
TTL Control Input				Signal Path State
C4	C3	C2	C1	
0	0	0	1	J0-J1
0	0	1	0	J0-J2
0	1	0	0	J0-J3
1	0	0	0	J0-J4

Low(0):0V;High(1):+3.3~5V



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

Environmental Conditions:

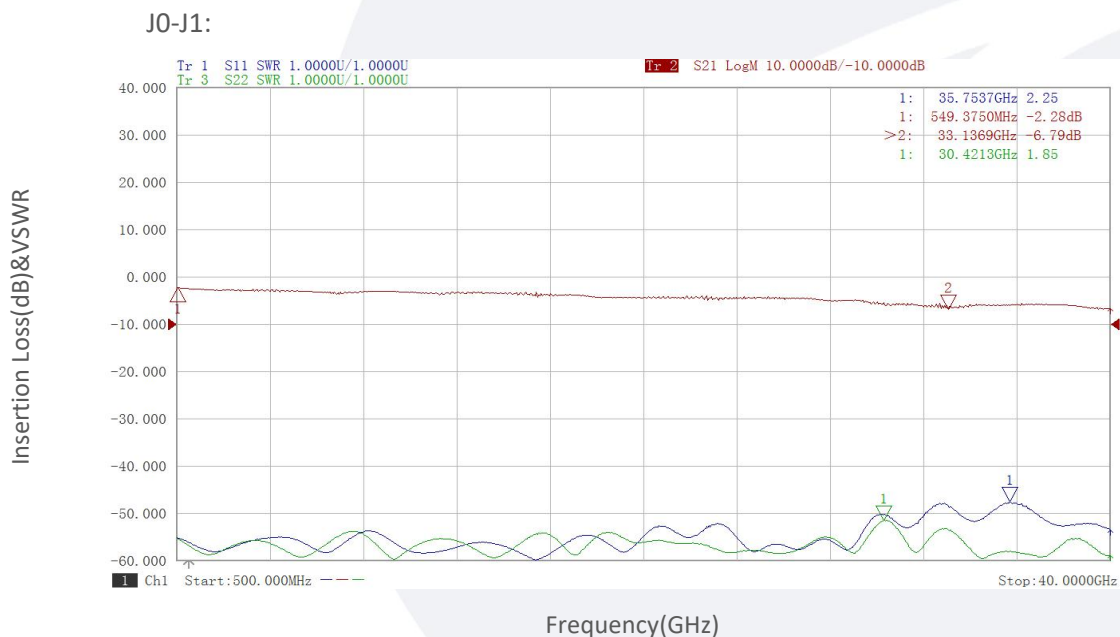
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLSP4T0.5G40GA-2	Absorptive,Broadband PIN Switch 0.5-40 GHz,SP4T,2.92mm	Rev.1.1

Typical Performance Data:

Insertion Loss&VSWR vs Frequency

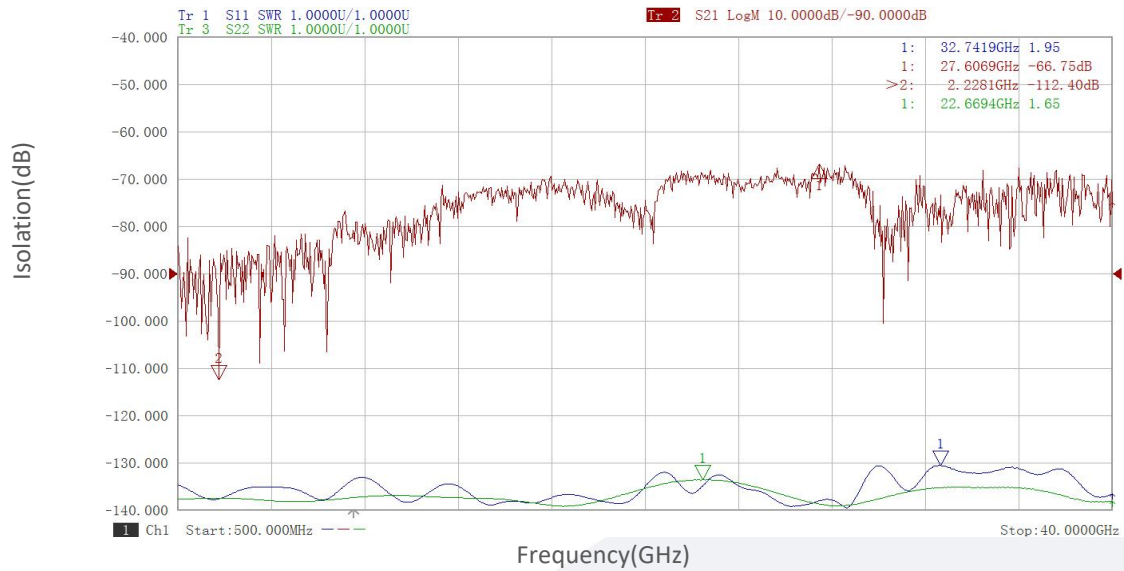


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

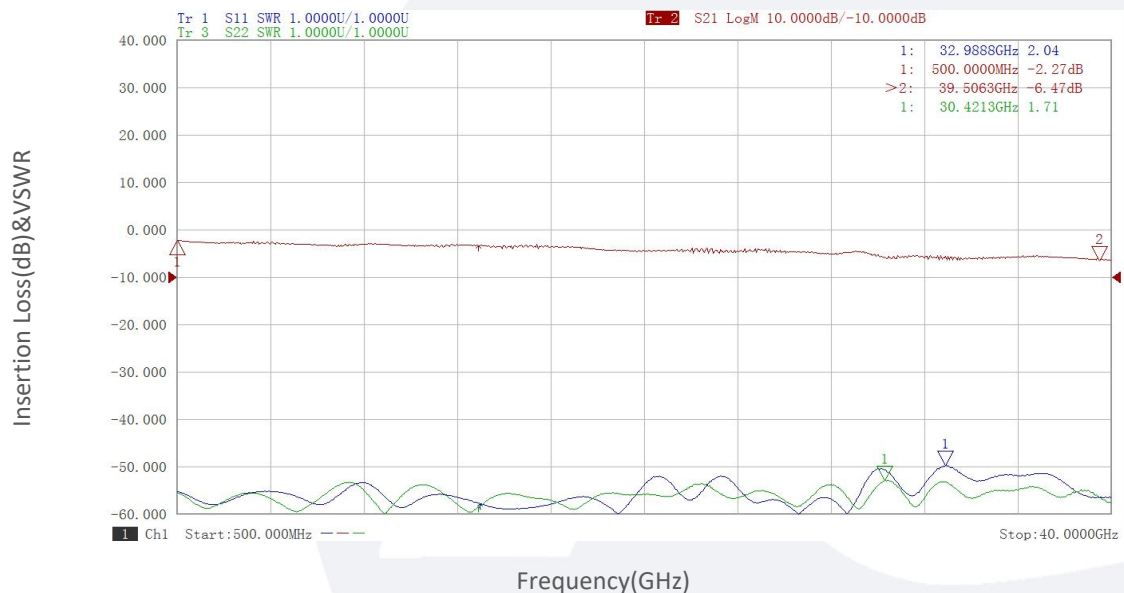
Isolation vs Frequency

J0-J1:



Insertion Loss & VSWR vs Frequency

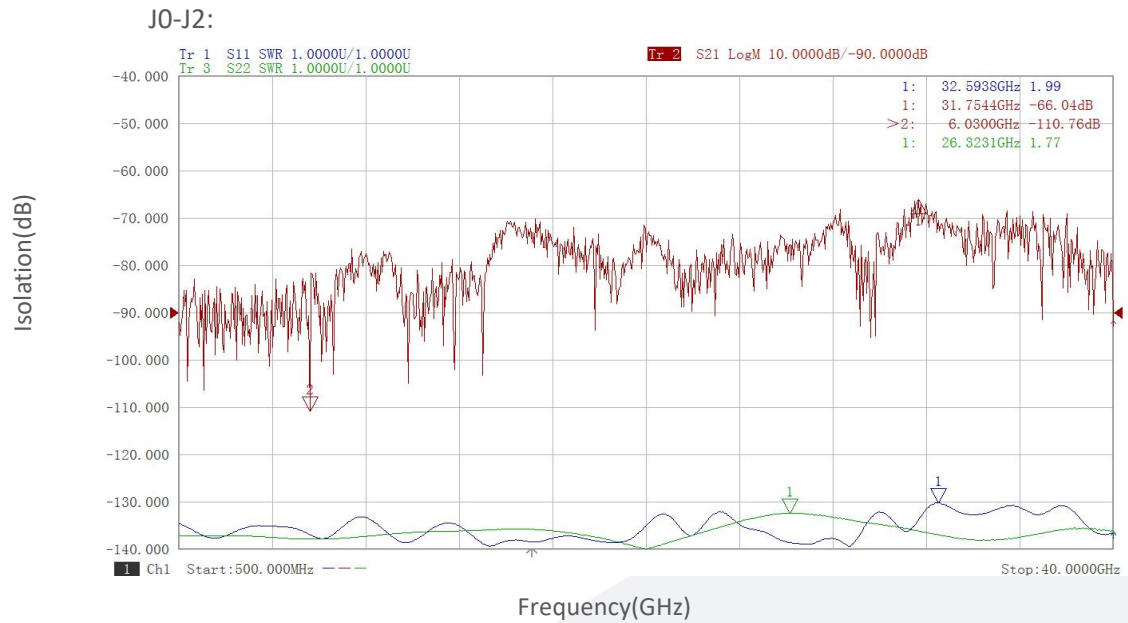
J0-J2:



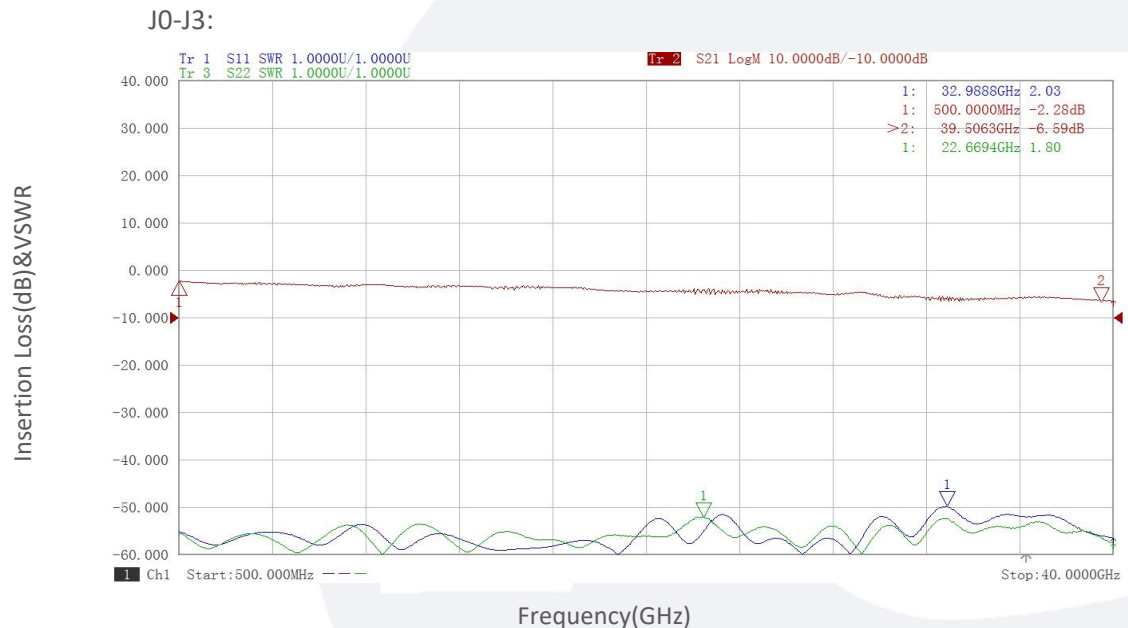
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



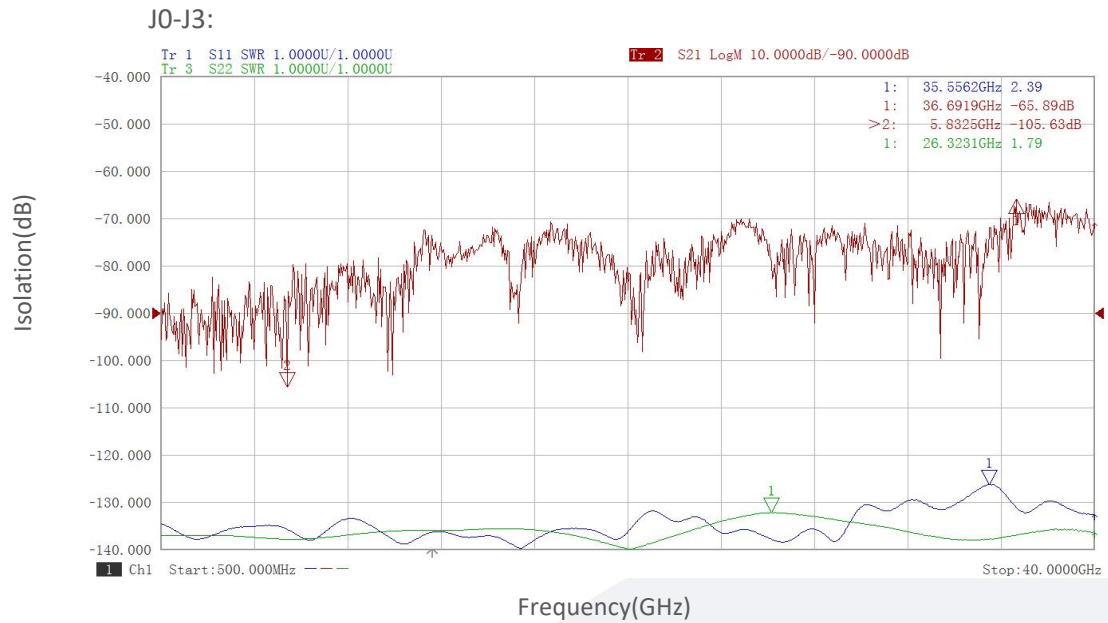
Insertion Loss&VSWR vs Frequency



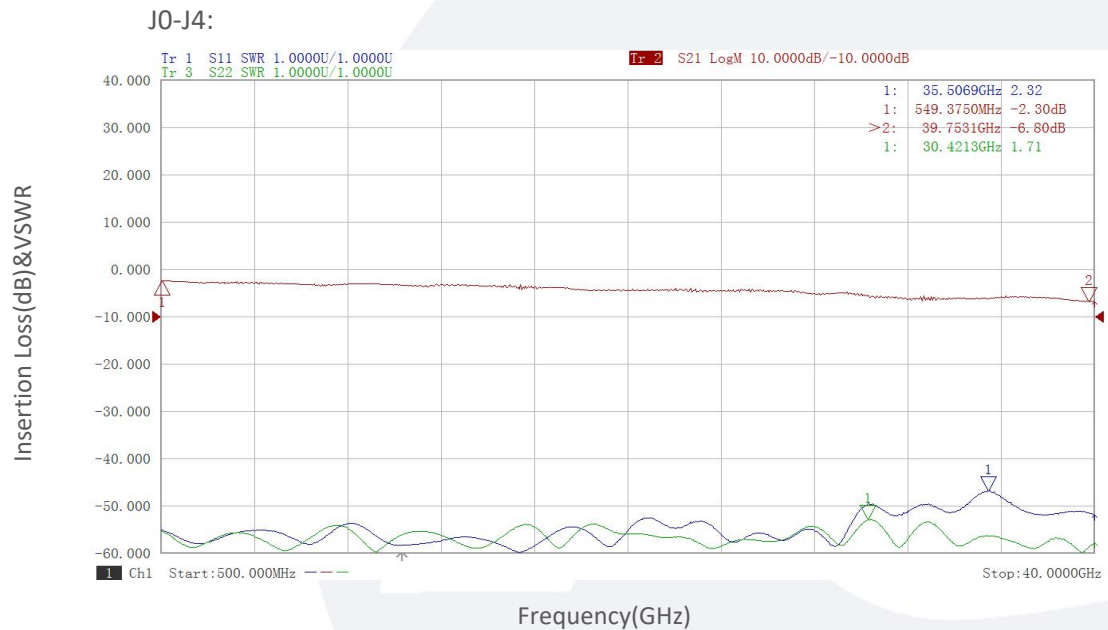
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



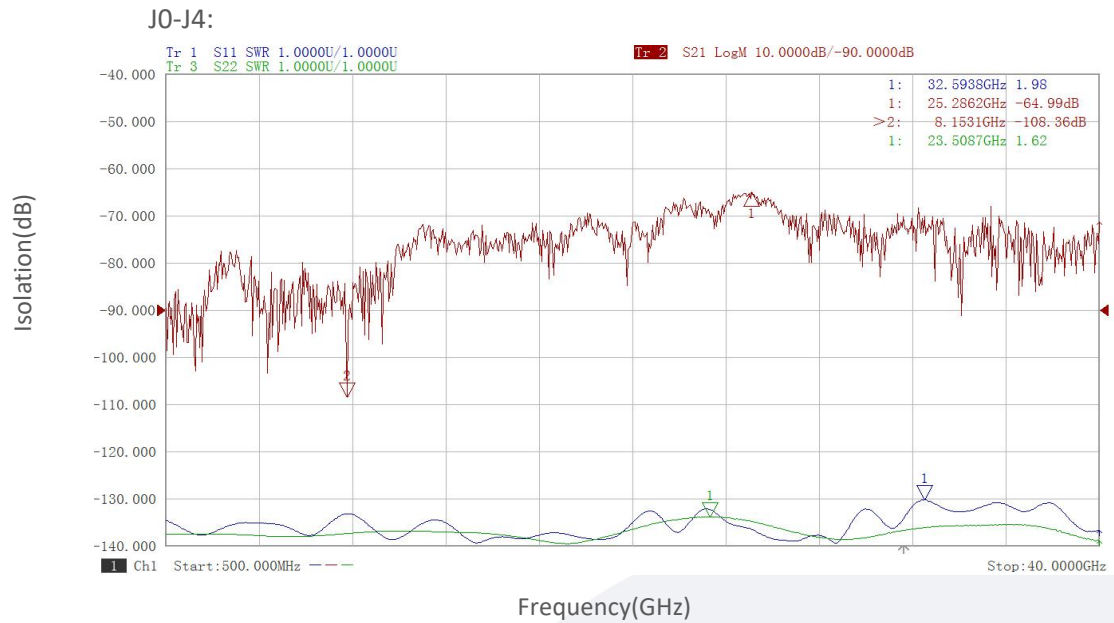
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