

Absorptive, Broadband TTL Switch

9KHz-8GHz/SPDT/SMA Female

Model: TLSPDT9K8GA-5ns

The TLSPDT9K8GA-5ns is an absorptive switch with a TTL driver that operates between 9KHz and 8GHz. The SPDT switch offers 70 dB port-to-port isolation with a typical switching speed of 8 ns. The input and output connectors of the switch are SMA female.

Features:

- Frequency range: 9KHz-8GHz
- Low Insertion Loss: 8.0 dB
- Power Handling : 27dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	9KHz		8GHz	
Insertion Loss		3	3.5	dB
Isolation	60	80		dB
Switch Speed		8	10	ns
Input VSWR		1.5	1.8	:1
Output VSWR		1.5	1.8	:1
Power Handling			27	dBm
Rise/Fall Time		3	5	ns
DC Voltage		5		V DC
Control Logic TTL		0/+5		V DC
Switch type	Absorptive			
Impedance	50			Ohms

Absolute Maximum Ratings :

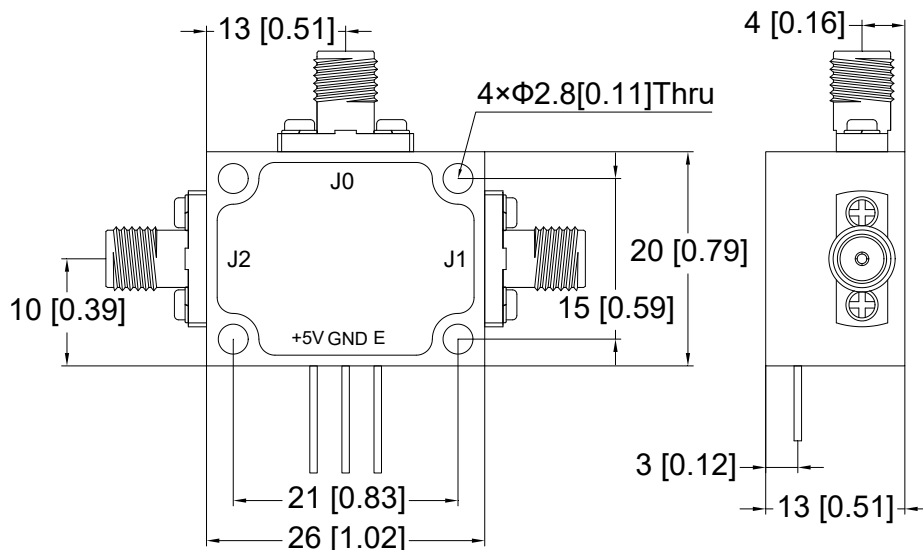
Description	Parameter	Units
Supply Bias Voltage	±5%	V
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	单位 Units
Input /Output Connector	SMA Female/SMA Female	
Control Bias	Solder Pin	
Size	26*20*13	mm

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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



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

Environmental Conditions:

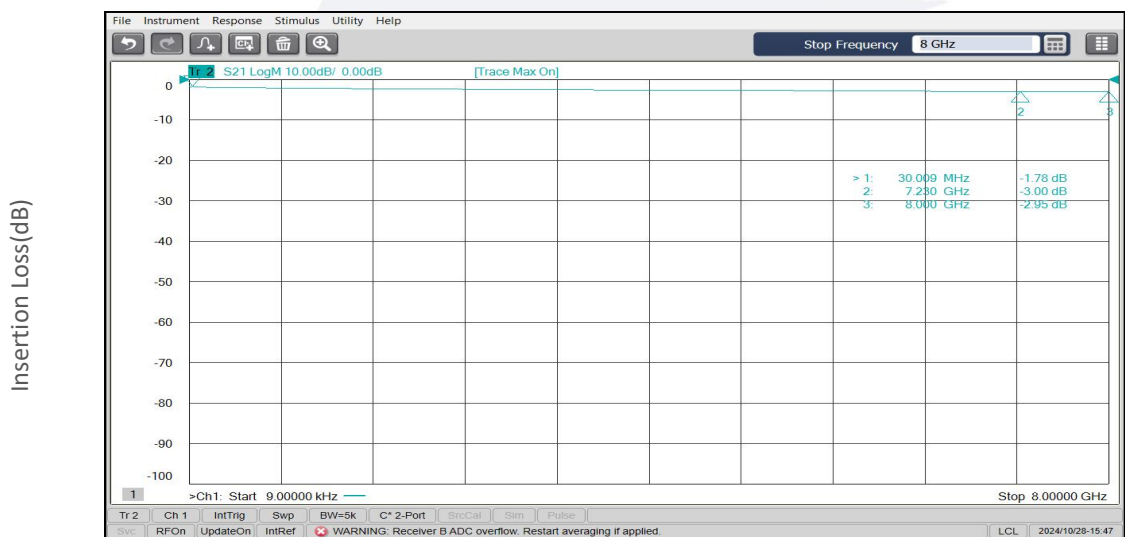
Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLSPDT9K8GA-5ns	Absorptive,Broadband Switch 9KHz-8GHz,SPDT,SMA	Rev.1.1

Typical Performance Data:

Insertion Loss vs Frequency

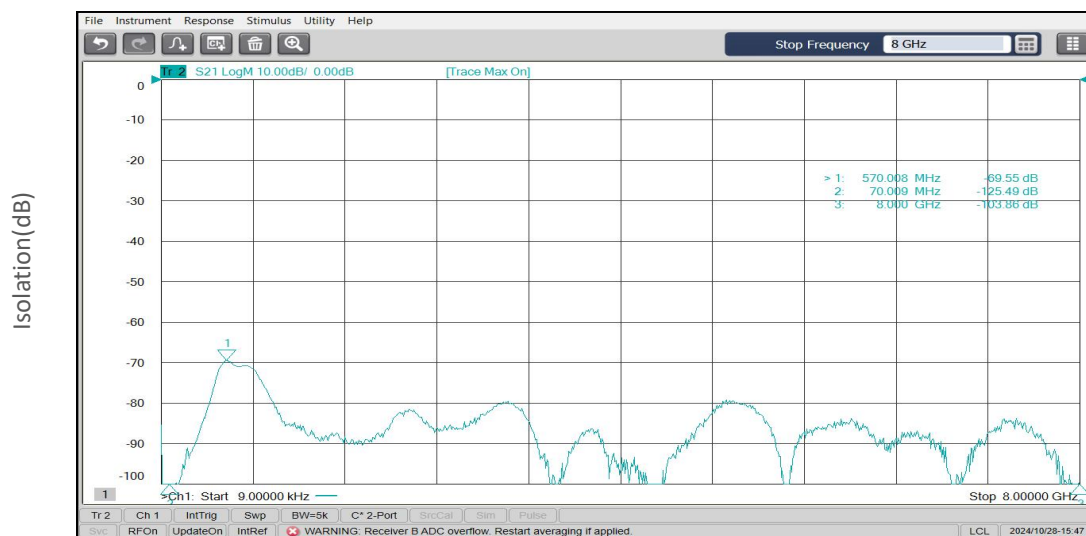


Frequency(GHz)

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.

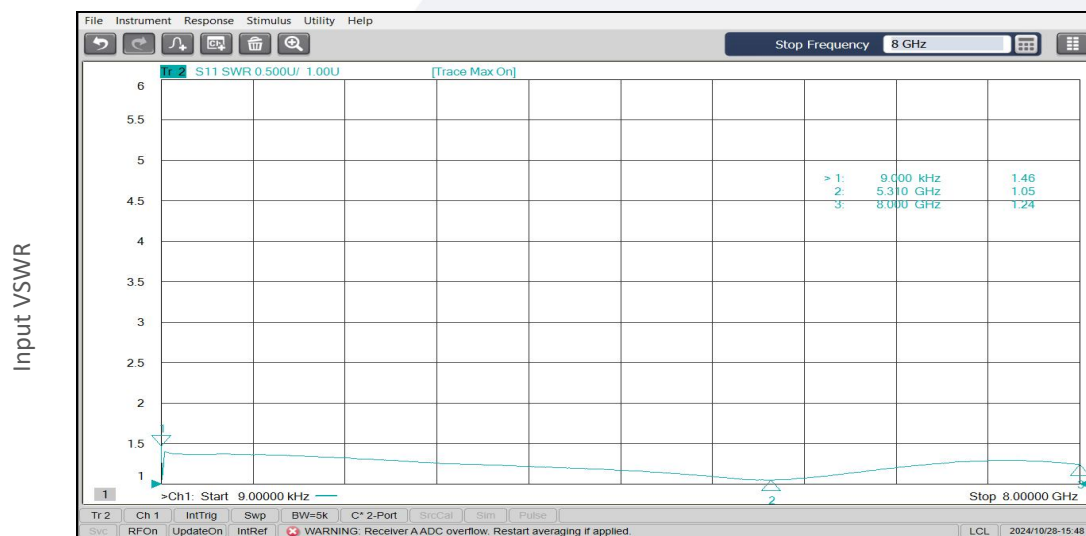
Typical Performance Data:

Isolation vs Frequency



Frequency(GHz)

Input VSWR vs Frequency



Frequency(GHz)

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:

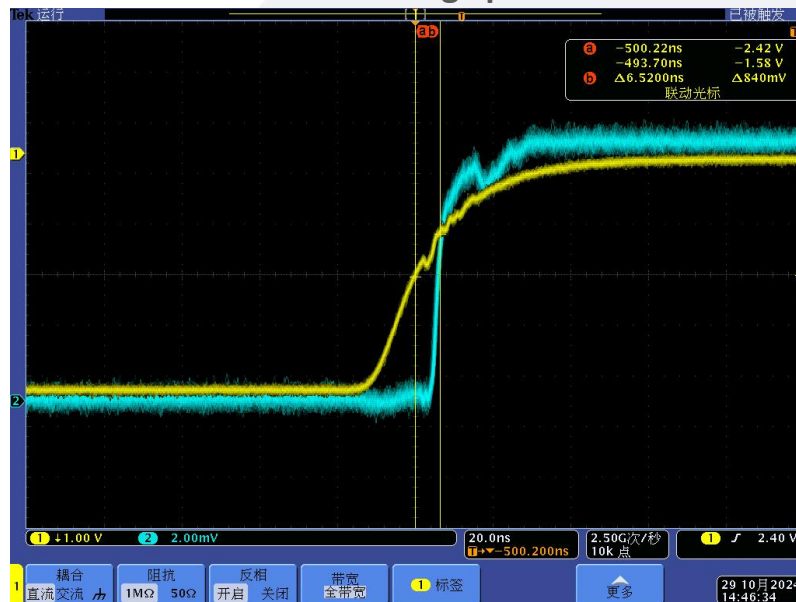
Output VSWR vs Frequency

Output VSWR



Frequency(GHz)

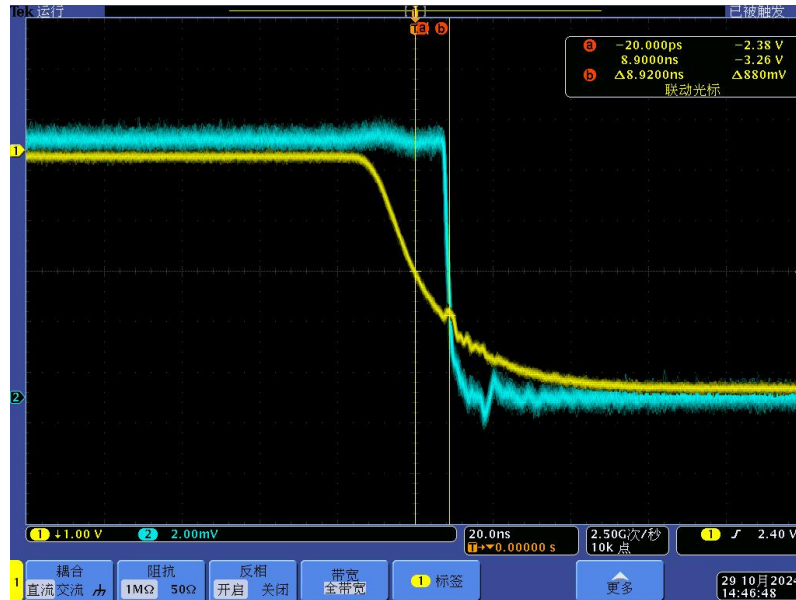
Switching Speed



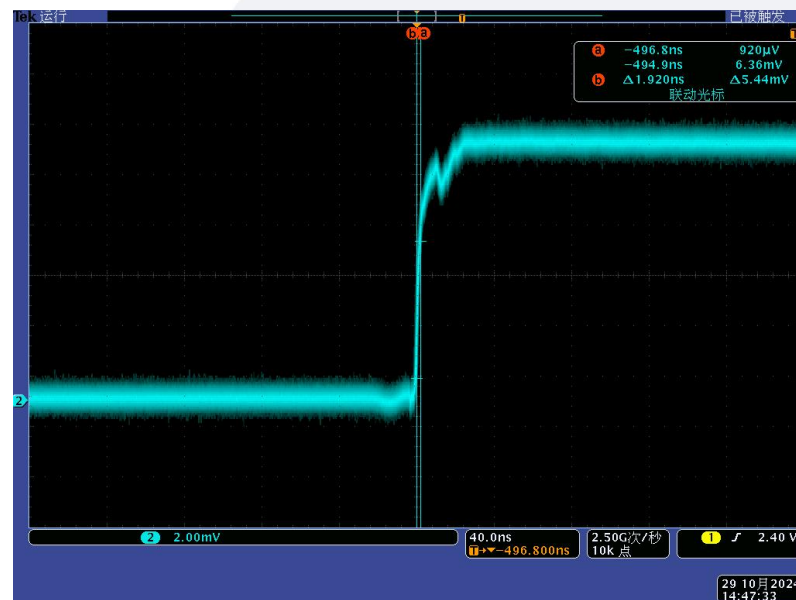
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Switching Speed



Rise Time



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:

Fall Time



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.