

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

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	9KHz		8GHz	
插损 Insertion Loss		3	3.5	dB
隔离 Isolation	60	80		dB
切换速度 Switch Speed		8	10	ns
输入驻波 Input VSWR		1.5	1.8	:1
输出驻波 Output VSWR		1.5	1.8	:1
耐功率 Power Handling			27	dBm
上升/下降沿 Rise/Fall Time		3	5	ns
直流电压 DC Voltage		5		V DC
控制电平 Control Logic TTL		0/+5		V DC
开关类型 Switch type	Absorptive			
阻抗 Impedance	50			Ohms

绝对最大值 Absolute Maximum Ratings :

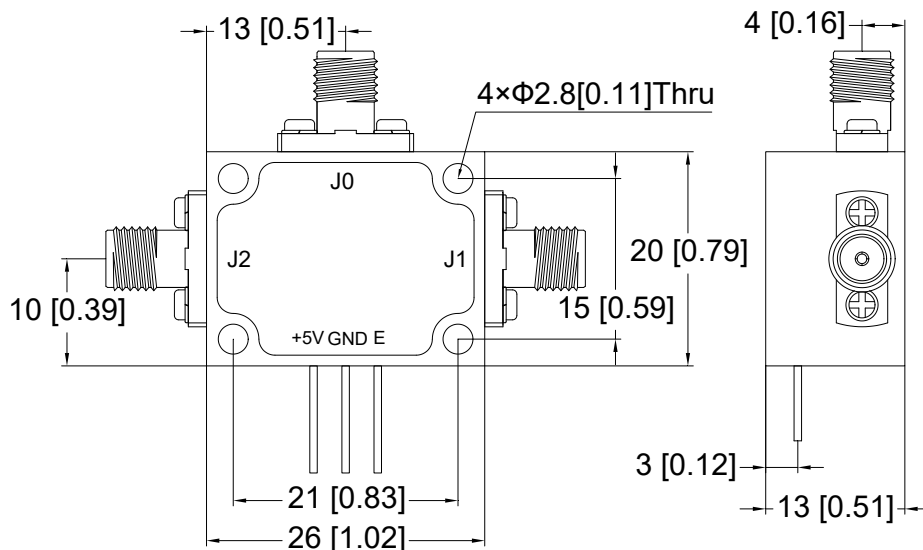
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	±5%	V
射频输入功率 RF Input Power	27	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

机械特性 Mechanical Specifications:

描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	SMA Female/SMA Female	
直流控制接口 Control Bias	Solder Pin	
尺寸 Size	26*20*13	mm

外形图 Outline Drawing:

Unit:mm; Tolerance:±0.1mm



真值表 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.

温度环境 Environmental Conditions:

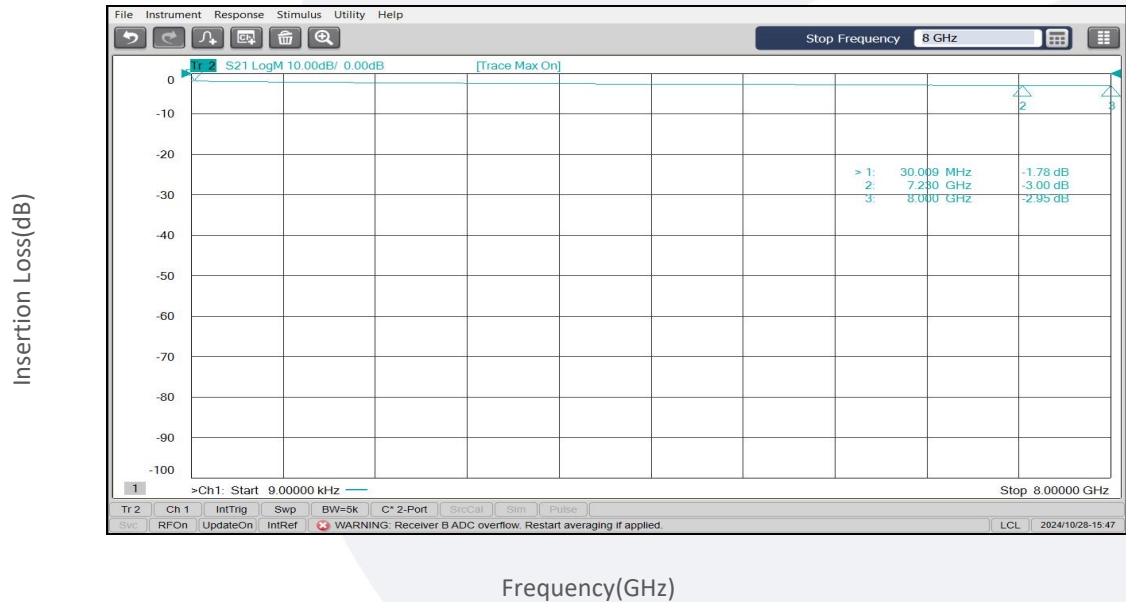
参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-40		+85	℃
存储温度 Non-operating Temperature	-55		+125	℃
相对湿度 Relative humidity		95		%
海拔 Altitude	10,000			feet
震动 Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
冲击 Shock(non operating)	20G for 11msc half 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
TLSPDT9K8GA-5ns	Absorptive,Broadband Switch 9KHz-8GHz,SPDT,SMA	Rev.1.1

典型曲线 Typical Performance Data:

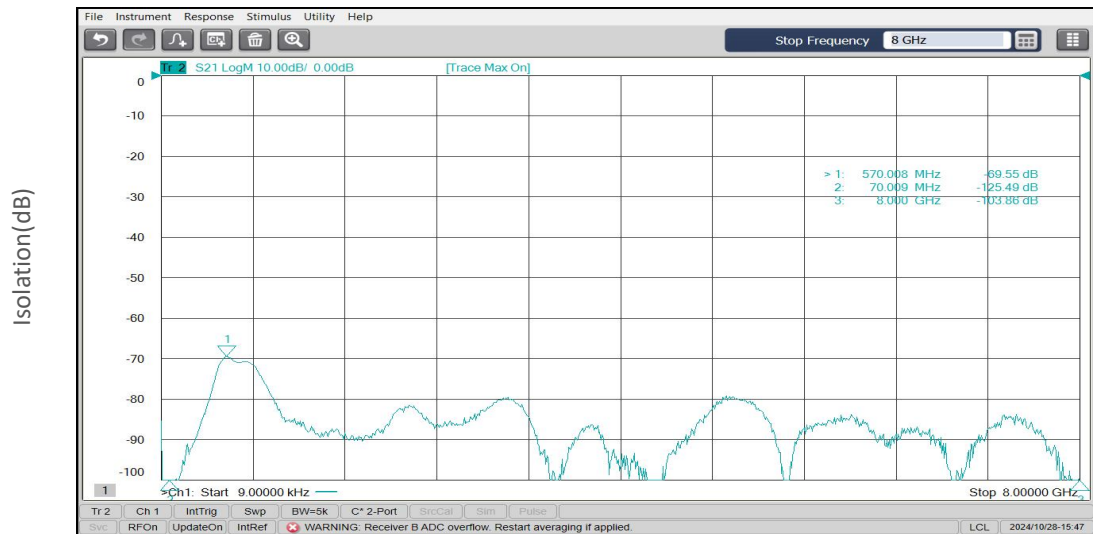
Insertion Loss vs Frequency



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.

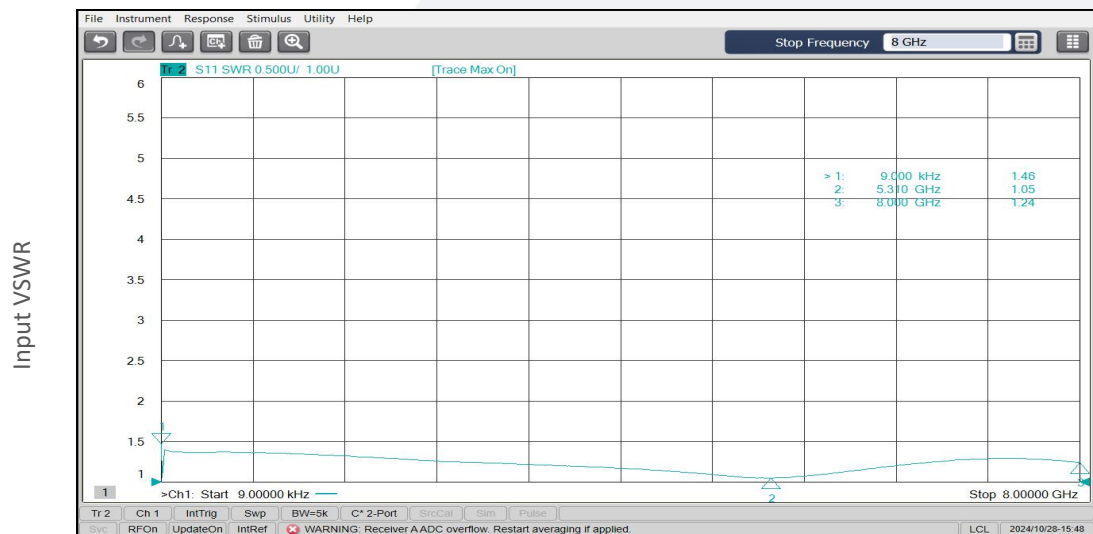
典型曲线 Typical Performance Data:

Isolation vs Frequency



Frequency(GHz)

Input VSWR vs Frequency

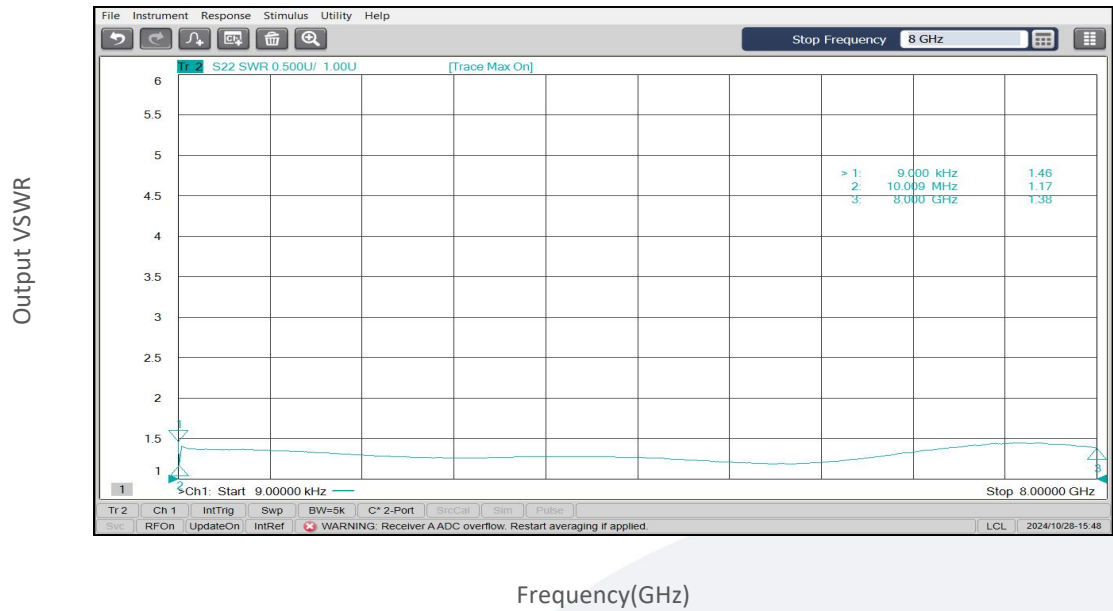


Frequency(GHz)

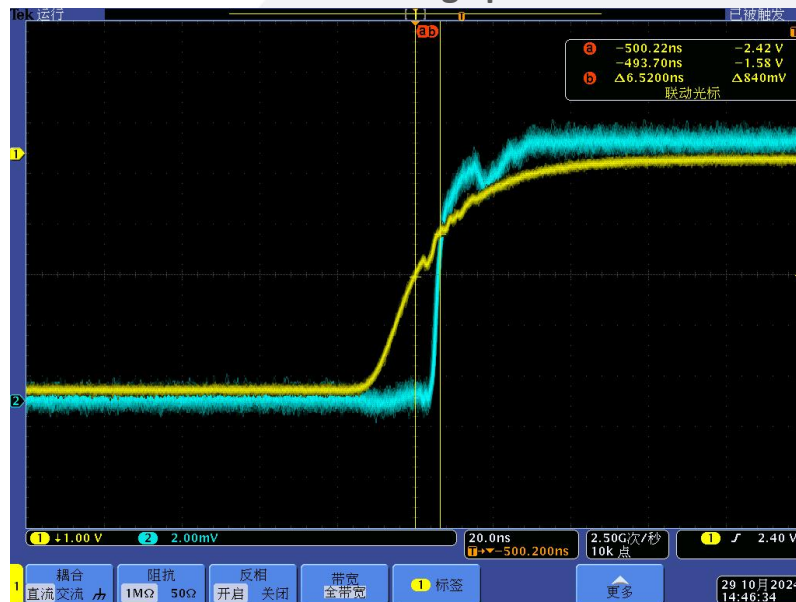
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

Output VSWR vs Frequency



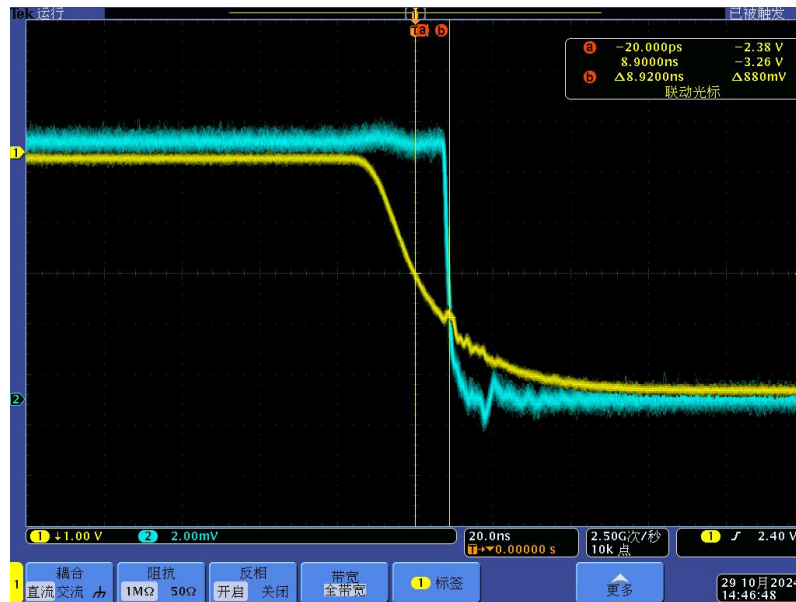
Switching Speed



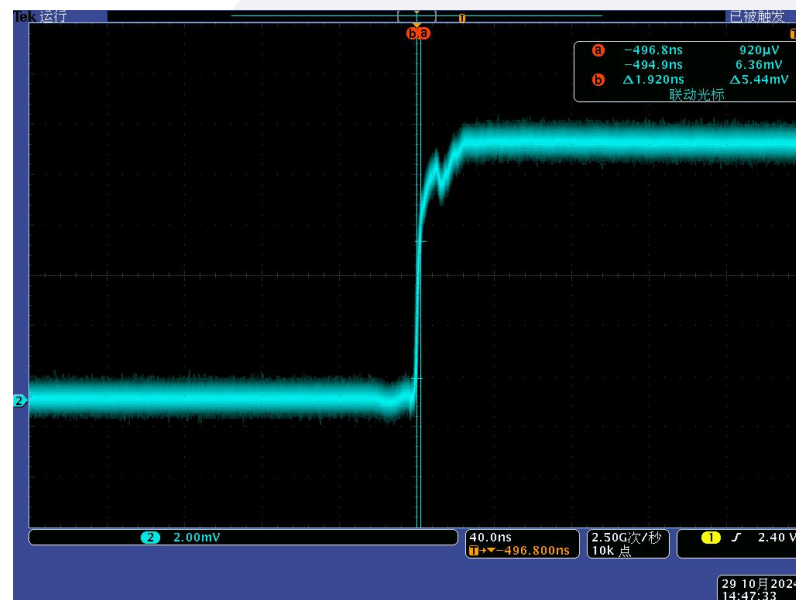
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 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.

典型曲线 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.