

Reflective, Broadband MMIC Switch

0.8G-20G/SPDT/SMA Female

Model: TLSPDT0.8G20GA

The TLSPDT0.8G20GA is an reflective MMIC switch with a TTL driver that operates between 0.8G and 20 GHz. The SPDT switch offers 60 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The input and output connectors of the switch are SMA female.

Features:

- Ultra Wide Band: 0.8G-20GHz
- Low Insertion Loss: 4 dB
- Power Handling : 27 dBm
- High Isolation
- Switch Type: reflective

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.8		20	GHz
Insertion Loss		4		dB
Isolation	60			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		20		mA
Switch type	Absorptive			
Impedance	50			Ohms

Absolute Maximum Ratings :

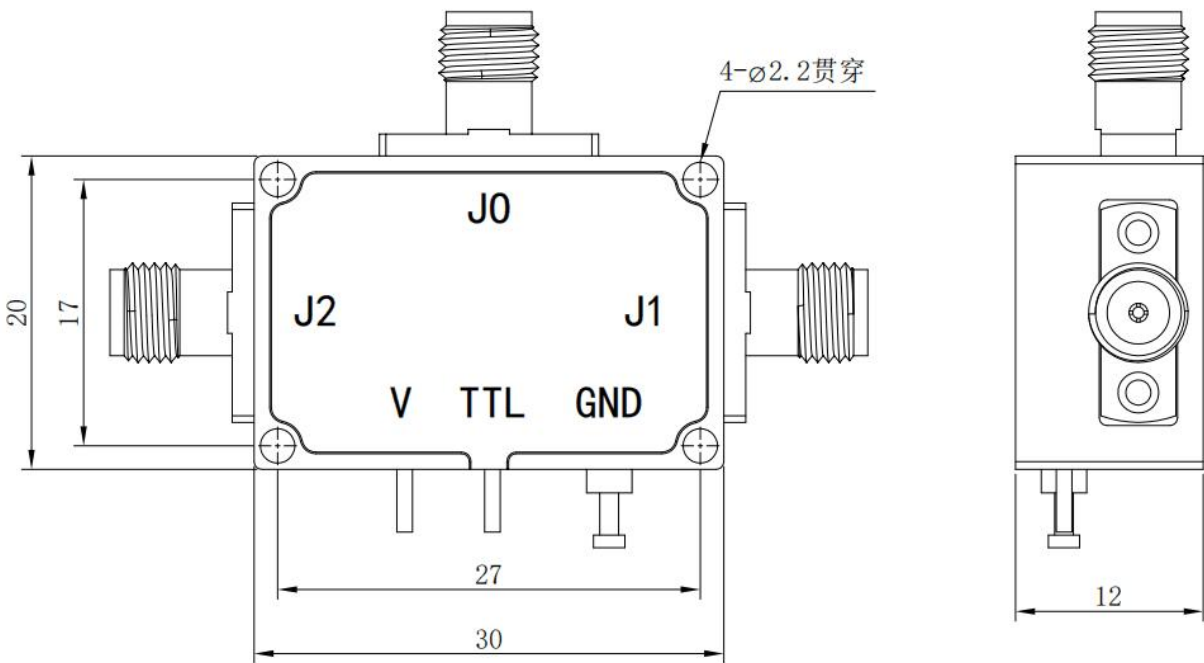
Description	Parameter	Units
Supply Bias Voltage	±5%	V
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	SMA Female/SMA Female	
Control Bias	Solder Pin	
Size	30*20*12	mm

Outline Drawing:

Unit:mm



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.

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

TTL Control Voltages &VDD	
Stage	Bias Condition
VDD	+5V ($\pm 5\%$)
Low (0)	0 to 0.8Vdc
High (1)	+2 to +3.3Vdc

Environmental Conditions:

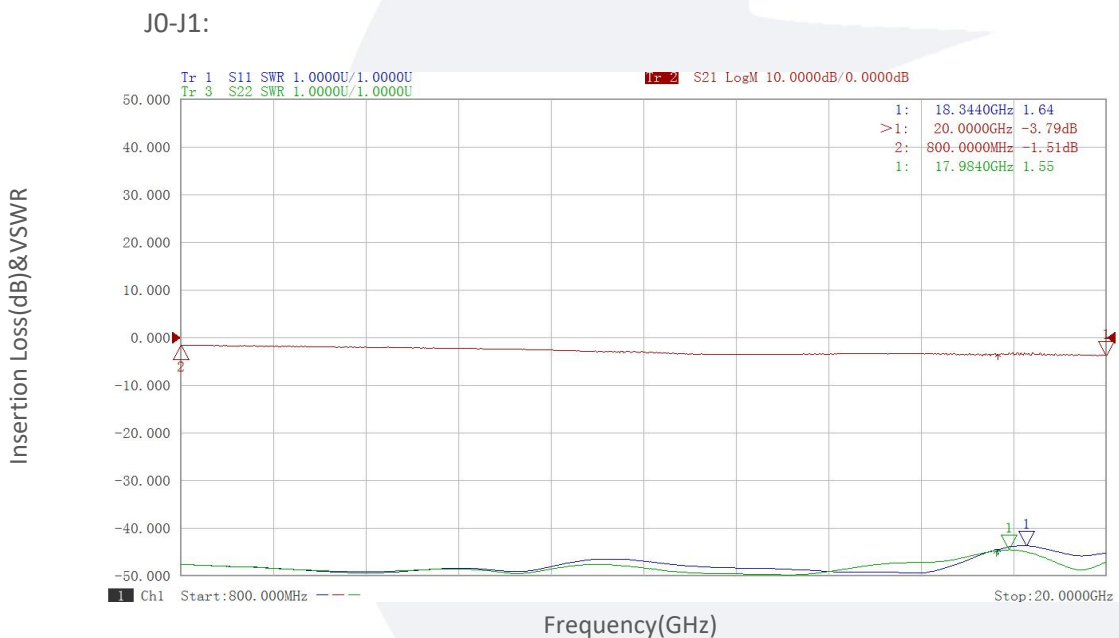
Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	°C
Non-operating Temperature	-45		+85	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

Base Number	Description	Revision
TLSPDT0.8G20GA	Reflective,Broadband MMIC Switch 0.8-20GHz, SPDT, SMA Female	Rev.1.0

Typical Performance Data:

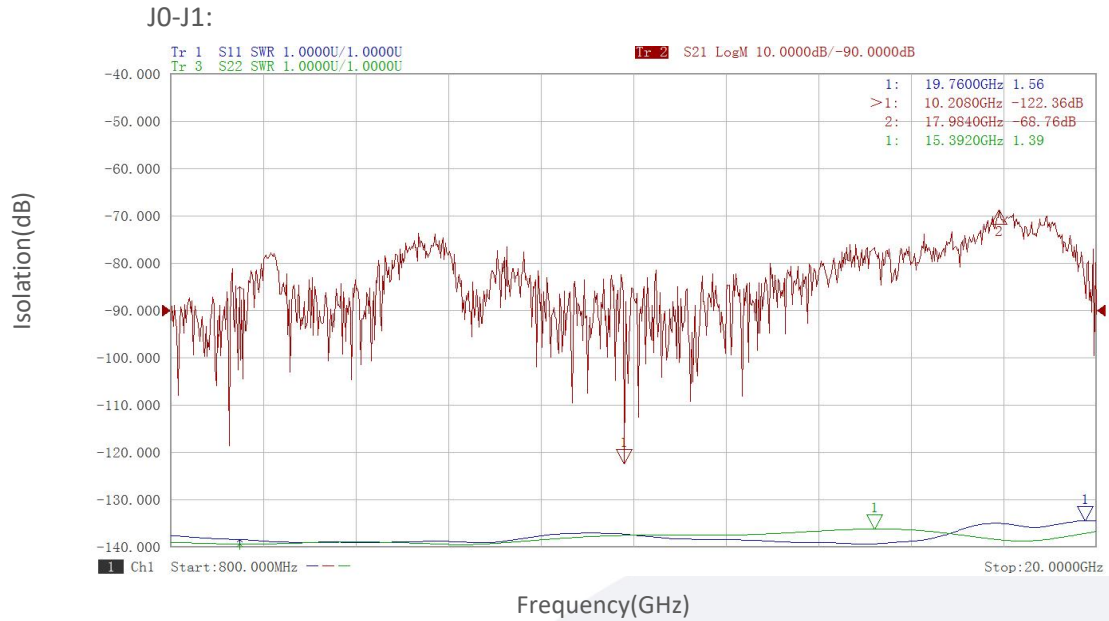
Insertion Loss&VSWR vs Frequency



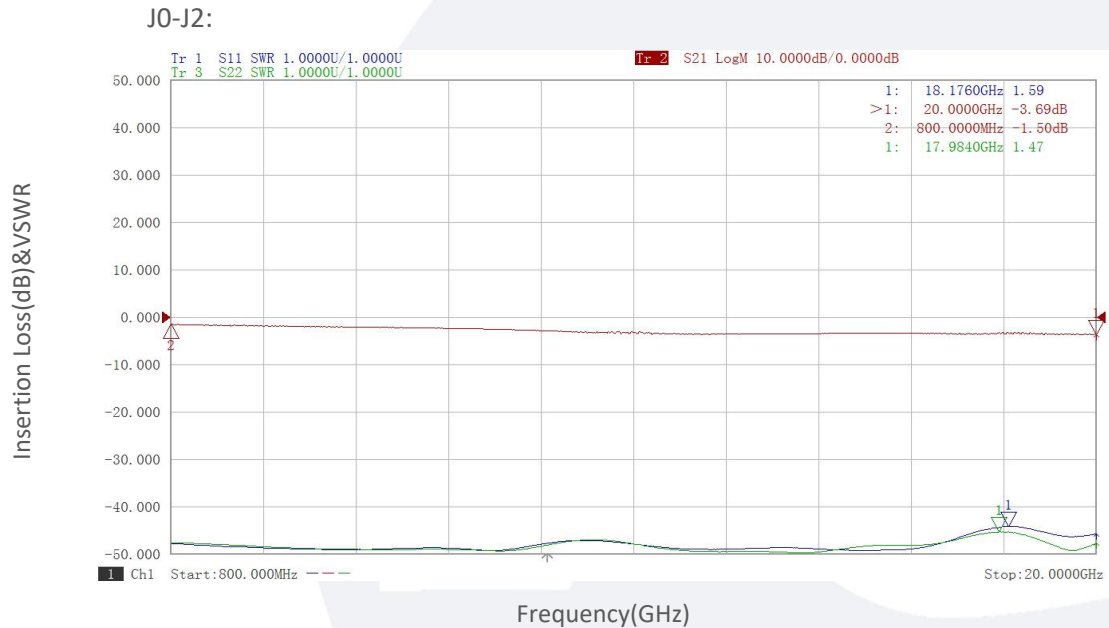
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



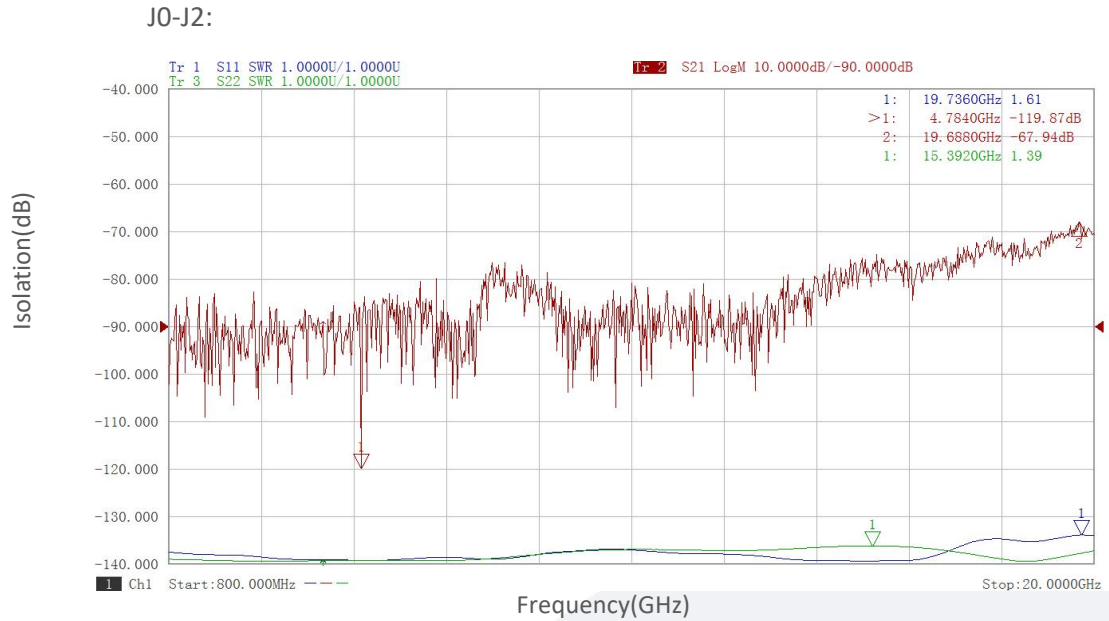
Insertion Loss&VSWR vs Frequency



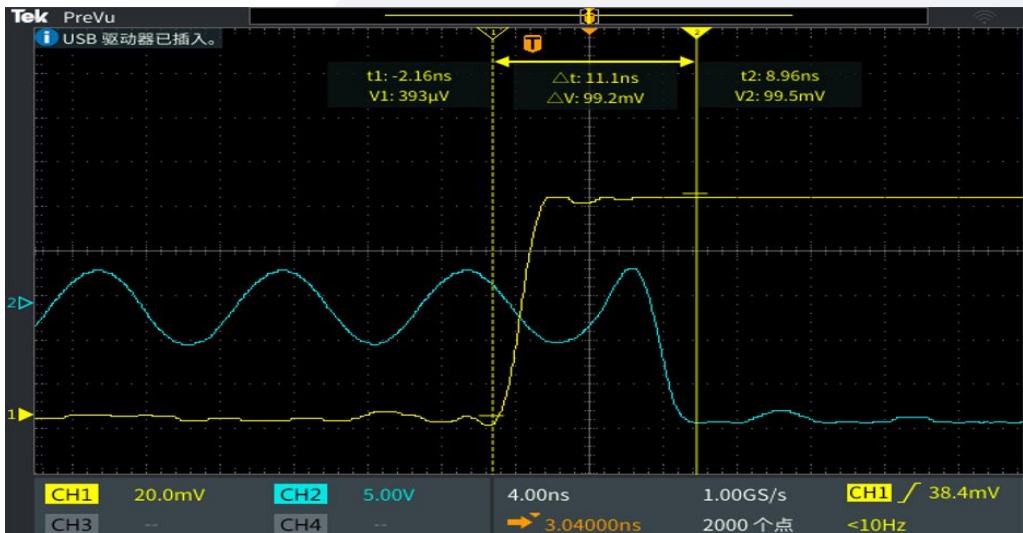
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Isolation vs Frequency



Switch Time



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