

Absorptive, Broadband PIN Switch

0.1-110 GHz/SPDT/1.0mm Female

Model: TLSPDT0.1G110G

The TLSPDT0.1G110G is an absorptive PIN diode based switch with a TTL driver that operates between 0.1 and 110 GHz. The SPDT switch offers 20 dB port-to-port isolation with a typical switching speed of 100 ns. The input and output connectors of the switch are 1.0mm Female.

Features:

- Ultra Wide Band: 0.1-110 GHz
- Low Insertion Loss: 6.5 dB Typ
- Power Handling : 20 dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.1-110			GHz
Insertion Loss		6.5		dB
Isolation	20			dB
Switch Speed			100	ns
Input VSWR			3.0	:1
Output VSWR			3.0	:1
Power Handling			20	dBm
DC Voltage		+5		V DC
Control Voltage	High (1) →0V Low (0) →-15V			V
DC Supply Current		100		mA
Switch type	Reflective			
Impedance	50			Ohms

Absolute Maximum Ratings :

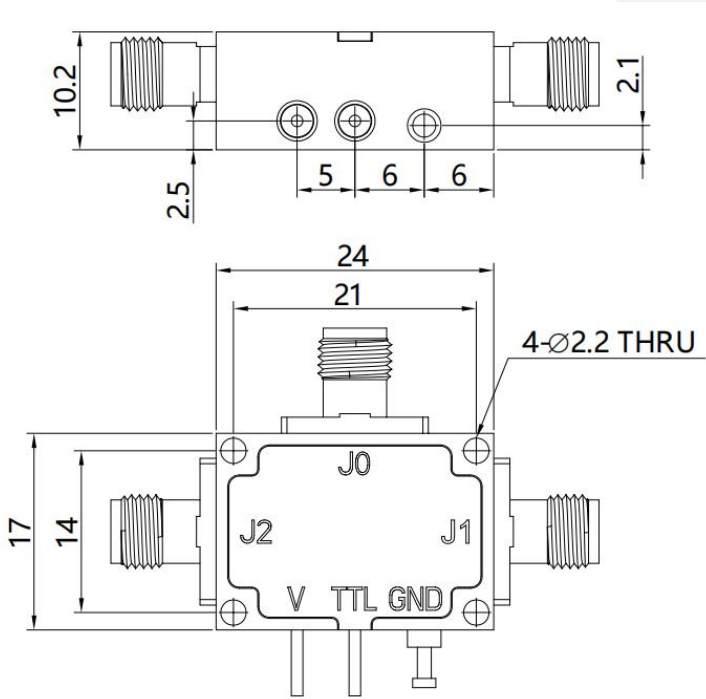
Description	Parameter	Units
Supply Bias Voltage	+5V±10%	V
RF Input Power	23	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	1.0mm Female/1.0mm Female	
Control Bias	Solder Pin	
Size	24*17*10.2	mm

Outline Drawing:

Unit:mm



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

TTL Control Voltages &VDD	
Stage	Bias Condition
VDD	+5V (± 5%)
Low (0)	-15.5 to -14.5Vdc
High (1)	0 to 0.5Vdc



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
TLSPDT0.1G110G	Reflective, Broadband PIN Switch 0.1-110 GHz,SPDT,1.0mm Female	Rev.1.0