

Absorptive, Broadband PIN Switch

8-18GHz/SP32T/ SMA Female

Model: TLSP32T8G18GA-PM01

The TLSP32T8G18GA-PM01 is an absorptive PIN diode based switch with a TTL driver that operates between 8 and 18 GHz. The SP32T switch offers 50 dB port-to-port isolation with a typical switching speed of 100 ns. The input and output connectors of the switch are SMA female.

Features:

- Ultra Wide Band: 8-18 GHz
- Low Insertion Loss: 10.0 dB
- Power Handling : 27 dBm
- High Isolation
- Switch Type: Absorptive

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	8-18			GHz
Insertion Loss		10	14	dB
Isolation		50		dB
Switch Speed		80	100	ns
Input VSWR		2		:1
Output VSWR		2		:1
Power Handling		27		dBm
Isolation port Power Handling		20		dBm
Side port phase consistency		±8	±10	°
DC Supply Voltage		5.5	8	V DC
Control Logic TTL		0/+3.3		V DC
DC Supply Current		2200		mA
Switch type	Absorptive			
Impedance	50			Ohms

DC blocking.

Absolute Maximum Ratings :

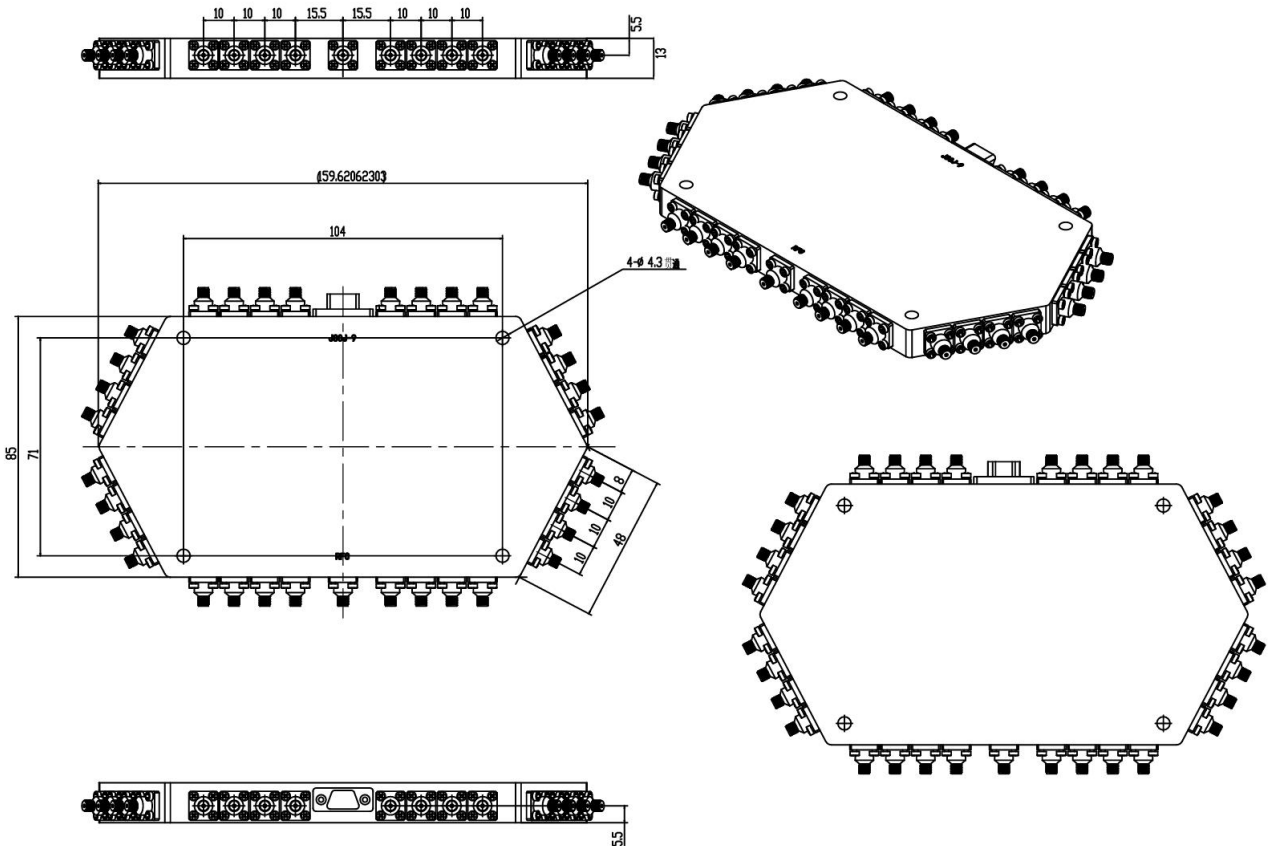
Description	Parameter	Units
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	SMA Female/SMA Female	
Control Bias	J30J-9ZKP	
Size	59.62*85*13	mm

Outline Drawing:

Unit:mm



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

DC Supply Connector (J30J-9ZKSP):

Pin	Function	Pin	Function	Pin	Function
1	GND	4	C1	7	C4
2	+5.5V	5	C2	8	C5
3	+5.5V	6	C3	9	GND

Truth Table:

Truth Table					
TTL Control Input					Signal Path State
C1	C2	C3	C4	C5	
0	0	0	0	0	RF1
0	0	0	0	1	RF2
0	0	0	1	0	RF3
0	0	0	1	1	RF4
0	0	1	0	0	RF5
0	0	1	0	1	RF6
0	0	1	1	0	RF7
0	0	1	1	1	RF8
0	1	0	0	0	RF9
0	1	0	0	1	RF10
0	1	0	1	0	RF11
0	1	0	1	1	RF12
0	1	1	0	0	RF13
0	1	1	0	1	RF14
0	1	1	1	0	RF15
0	1	1	1	1	RF16

Truth Table					
TTL Control Input					Signal Path State
C1	C2	C3	C4	C5	
1	0	0	0	0	RF17
1	0	0	0	1	RF18
1	0	0	1	0	RF19
1	0	0	1	1	RF20
1	0	1	0	0	RF21
1	0	1	0	1	RF22
1	0	1	1	0	RF23
1	0	1	1	1	RF24
1	1	0	0	0	RF25
1	1	0	0	1	RF26
1	1	0	1	0	RF27
1	1	0	1	1	RF28
1	1	1	0	0	RF29
1	1	1	0	1	RF30
1	1	1	1	0	RF31
1	1	1	1	1	RF32

TTL Control Voltages & VDD	
Stage	Bias Condition
VDD	+5.5V
Low (0)	0 Vdc
High (1)	+3.3 to +5.0Vdc

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
TLSP32T8G18GA-PM01	Absorptive, Broadband PIN Switch 8-18 GHz, SP32T, SMA	Rev.1.1