

## Reflective, Broadband PIN Switch

8-18 GHz/SPDT/ SMA Female

Model: TLSPDT8G18GR-300W

The TLSPDT8G18GR-300W is a reflective type switch with a TTL driver that operates between 8 and 18 GHz. The SPDT switch offers 40 dB port-to-port isolation with a typical switching speed of 150 nanoseconds. The input and output connectors of the switch are SMA female.

### Features:

- Ultra Wide Band: 8-18 GHz
- Low Insertion Loss: 1.6 dB
- Peak Power : 300 W
- High Isolation
- Switch Type: Reflective

### Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	8-18			GHz
Insertion Loss		1.6	2	dB
Isolation	35	40		dB
Switch Speed		150	200	ns
Input VSWR		1.8	2	:1
Output VSWR		1.8	2	:1
Load VSWR			2.5	:1
Peak Power			300	W
Duty Cycle			12	%
Pulse Width			10	us
DC Voltage		±5		V DC
DC Supply Current(Vcc=+5V)			350	mA
DC Supply Current(Vee=-28V)			150	mA
Control Voltage		0/+5		V
Switch type	Reflective			
Impedance	50			Ohms

### Absolute Maximum Ratings :

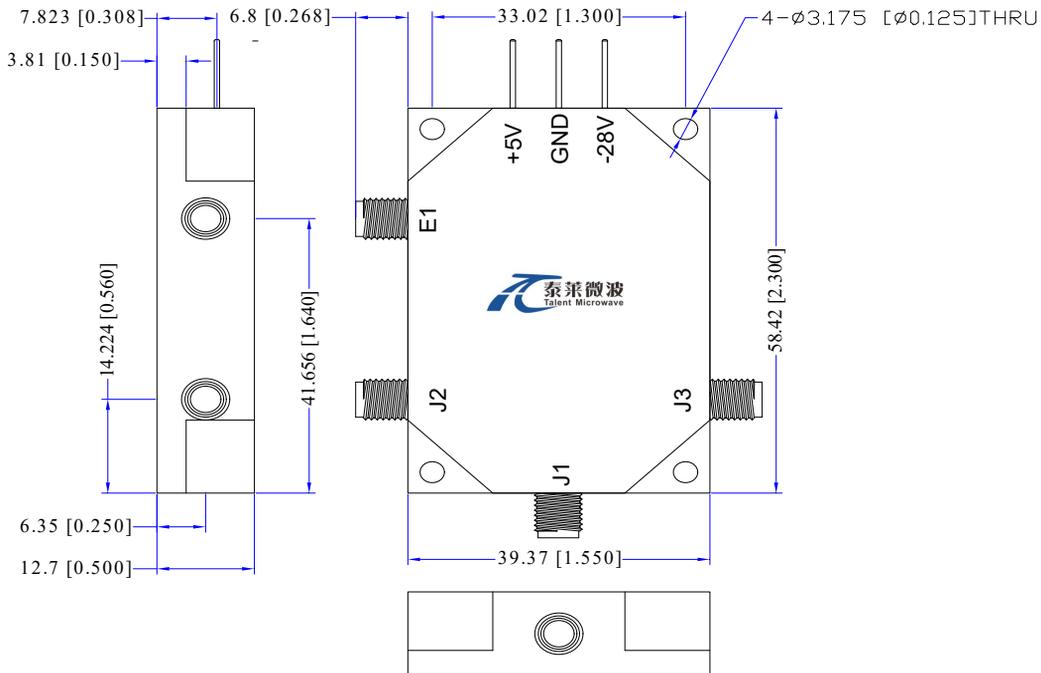
Description	Parameter	Units
Supply Bias Voltage	+5/-28 (+5%)	V
RF Input Power	300	W
ESD sensitivity (HBm)	Class 0, passed 150V	

### Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	SMA Female/SMA Female	
Control Bias	Solder Pin	
Size	39.37*58.42*12.7	mm

### Outline Drawing:

Unit:mm



真值表 Truth Table	
TTL Control Input	Signal Path State
E1	
0	J1-J2
1	J1-J3

TTL Control Voltages &VDD	
Stage	Bias Condition
VDD	+5V ( $\pm$ 5%)
VEE	-28V ( $\pm$ 5%)
Low (0)	0 to 0.8Vdc
High (1)	4.5 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
TLSPDT8G18GR-300W	Reflective,Broadband PIN Switch 8-18 GHz,SPDT,SMA Female	Rev.1.1