

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
- Power Handling : 300 W
- High Isolation
- Switch Type: Reflective

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	8-18			GHz
插损 Insertion Loss		1.6	2	dB
隔离 Isolation	35	40		dB
切换速度 Switch Speed		150	200	ns
输入驻波 Input VSWR		1.8	2	:1
输出驻波 Output VSWR		1.8	2	:1
电压驻波 Load VSWR			2.5	:1
耐功率 Power Handling			300	W
占空比 Duty Cycle			12	%
脉宽 Pulse Width			10	us
直流电压 DC Voltage		±5		V DC
直流电流 DC Supply Current(Vcc=+5V)			350	mA
直流电流 DC Supply Current(Vee=-28V)			150	mA
控制电压 Control Voltage		0/+5		V
开关类型 Switch type	Reflective			
阻抗 Impedance	50			Ohms

绝对最大值 Absolute Maximum Ratings :

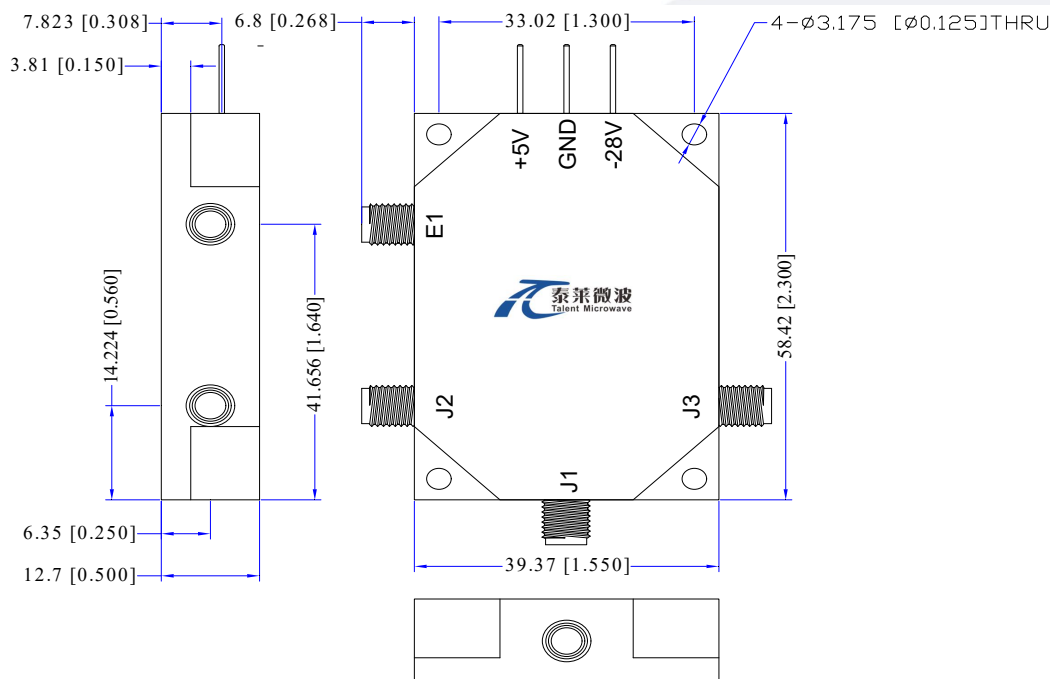
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	+5/-28 (+5%)	V
射频输入功率 RF Input Power	300	W
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

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	39.37*58.42*12.7	mm

外形图 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 (±5%)
VEE	-28V (±5%)
Low (0)	0 to 0.8Vdc
High (1)	4.5 to +5.0Vdc

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-10		+65	°C
存储温度 Non-operating Temperature	-45		+85	°C
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
TLSPDT8G18GR-300W	Reflective,Broadband PIN Switch 8-18 GHz,SPDT,SMA Female	Rev.1.1