

D-Band Reflective FET Switch

110-170 GHz/SPDT/ WR-06

Model: TMSPDT-110170-06

The TMSPDT-110170-06 is a D-Band switch with a TTL driver that operates between 110 and 170 GHz. The SPDT switch offers 23 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The input and output connectors of the switch are WR-06.

Features:

- Frequency range: 110-170GHz
- Low Insertion Loss: 5.5 dB
- Power Handling : 30 dBm
- 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	110-170			GHz
插损 Insertion Loss		5.5		dB
隔离 Isolation		23		dB
切换速度 Switch Speed		100		ns
输入驻波 Input VSWR		3.6		:1
输出驻波 Output VSWR		2.5		:1
功率压缩 P1dB Output P1dB		25		dBm
直流电压 DC Voltage		+5		V DC
控制电压 Control Voltage TTL	"0"=Low;"1"=High			V
直流电流 DC Supply Current		-100		mA
开关类型 Switch type	Reflective			

绝对最大值 Absolute Maximum Ratings :

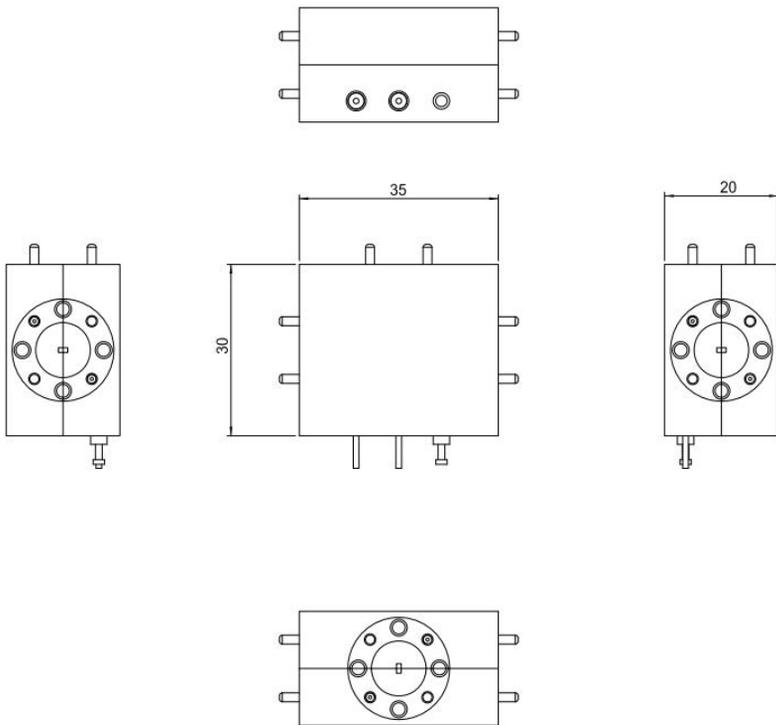
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	+5 (+5%)	V
射频输入功率 RF Input Power	30	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

机械特性 Mechanical Specifications:

描述 Description	参数 Parameter	单位 Units
输入/输出接口 Input /Output Connector	WR-06/UG-387/U	
直流控制接口 Control Bias	Solder Pin	
尺寸 Size	35*30*20	mm

外形图 Outline Drawing:

Unit:mm



真值表 Truth Table

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

TTL Control Voltages &VDD

Stage	Bias Condition
VDD	+5V ($\pm 5\%$)
Low (0)	0 to 0.8Vdc
High (1)	3.3 to +5.0Vdc



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

温度环境 Environmental Conditions:

参数 Parameter	Min	Typ	Max	单位 Units
操作温度 Operating Temperature	-45		+85	°C
存储温度 Non-operating Temperature	-55		+125	°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
TMSPDT-110170-06	D-Band Reflective FET Switch 110-170 GHz,SPDT,WR-06	Rev.1.1