

## V-Band Reflective FET Switch

### 50-75 GHz/SPDT/ WR-15

Model: TMSPDT-050075-15

The TMSPDT-050075-15 is a V-Band switch with a TTL driver that operates between 50 and 75 GHz. The SPDT switch offers 38 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The input and output connectors of the switch are WR-15.

#### Features:

- Frequency range: 50-75GHz
- Low Insertion Loss: 4.3 dB
- Power Handling : 20 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	50-75			GHz
插损 Insertion Loss		4.3		dB
隔离 Isolation		38		dB
切换速度 Switch Speed		100		ns
输入驻波 Input VSWR		1.8		:1
输出驻波 Output VSWR		1.8		:1
功率压缩 P1dB Output P1dB		20		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 :

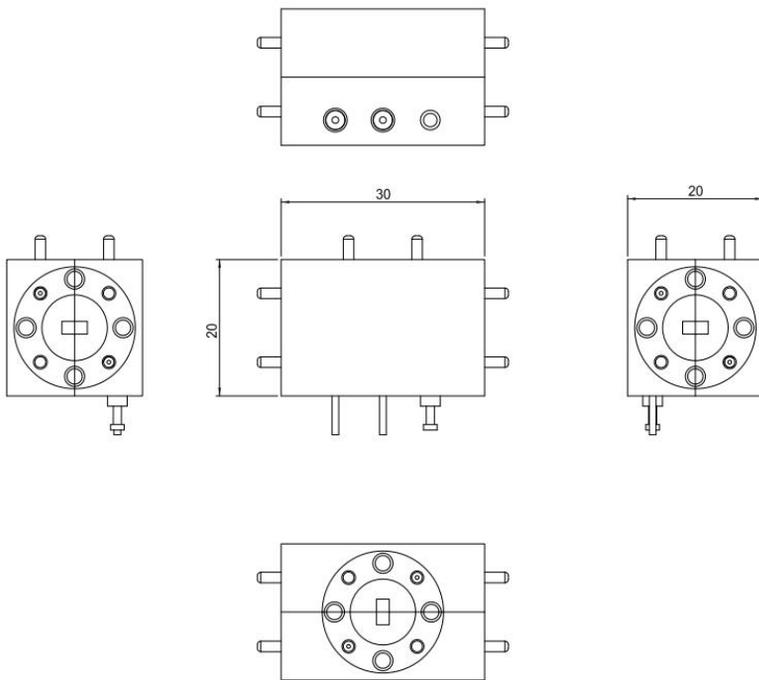
描述 Description	参数 Parameter	单位 Units
供电偏置电压 Supply Bias Voltage	-5 (+5%)	V
射频输入功率 RF Input Power	27	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

## 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-15/UG-385/U	
直流控制接口 Control Bias	Solder Pin	
尺寸 Size	30*20*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-050075-15	V-Band Reflective FET Switch 50-75 GHz,SPDT,WR-15	Rev.1.1