Suzhou Talent Microwave,Inc
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U-Band Reflective FET Switch

40-60 GHz/SPDT/ WR-19

Model: TMSPDT-040060-19

TheTMSPDT-040060-19 is a U-Band switch with a TTL driver that operates between 40 and 60 GHz. The SPDT switch offers 40 dB port-to-port isolation with a typical switching speed of 100 nanoseconds. The input and output connectors of the switch are WR-19.

Features:

- Frequency range: 40-60GHz
- Low Insertion Loss: 3.8 dB
- Power Handling : 20 dBm
- High Isolation
- Switch Type: Reflective

Applications:

- Communication Systems
- Automatic Test Equipment
- Switching Network

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range		40-60		GHz
Insertion Loss		3.8		dB
Isolation		40		dB
Switch Speed		100		ns
Input VSWR		1.8		:1
Output VSWR		1.8		:1
P1dB Output P1dB		20		dBm
DC Voltage		-5		V DC
Control Voltage TTL		“0”=Low;“1”=High		V
DC Supply Current		-100		mA
Switch type		Reflective		

Absolute Maximum Ratings :

Description	Parameter	Units
Supply Bias Voltage	-5（+5%）	V
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

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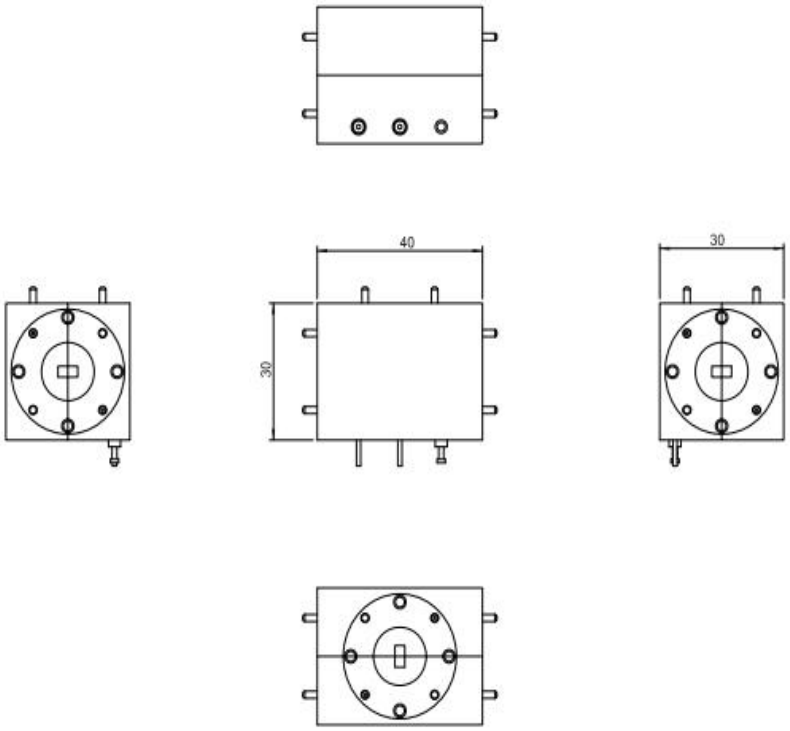
Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	WR-19/UG-383/U	
Control Bias	Solder Pin	
Size	40*30*30	mm

Outline Drawing:

Unit:mm



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

TTL Control Voltages &VDD	
Stage	**Bias Condition**
VDD	-5V (±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.

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	℃
Non-operating Temperature	-55		+125	℃
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
TMSPDT-040060-19	U-Band Reflective FET Switch 40-60 GHz,SPDT,WR-19	Rev.1.1