

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

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range		50-75		GHz
Insertion Loss		4.3		dB
Isolation		38		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 :

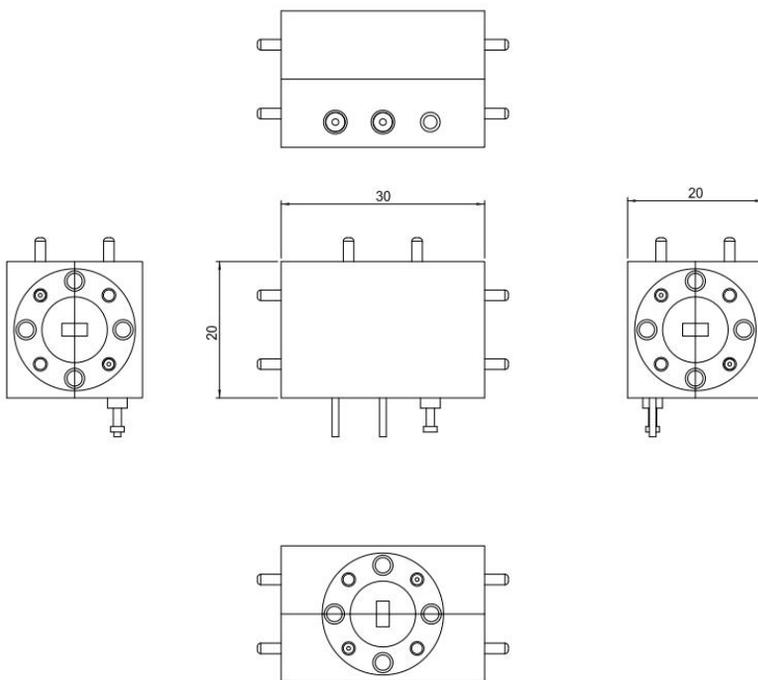
Description	Parameter	Units
Supply Bias Voltage	-5 (+5%)	V
RF Input Power	27	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Mechanical Specifications:

Description	Parameter	Units
Input /Output Connector	WR-15/UG-385/U	
Control Bias	Solder Pin	
Size	30*20*20	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 ($\pm 5\%$)
Low (0)	0 to 0.8Vdc
High (1)	3.3 to +5.0Vdc



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°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
TMSPDT-050075-15	V-Band Reflective FET Switch 50-75 GHz,SPDT,WR-15	Rev.1.1