Suzhou Talent Microwave,Inc
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Absorptive,W-band Waveguide Switch

75-110GHz/SPDT/ WR-10 Model: TMSPDT-075110-10

The TMSPDT-075110-10 is a W-Band, SPDT absorptive switch. The switch exhibits 3.5 dB typical insertion loss and 33 dB nominal isolation across the frequency range of 75 to 110 GHz. The control voltage of the standard model is TTL. The RF input and output ports are WR-10 waveguides with UG-387/UM anti-cocking flanges.

Features:

- Frequency range: 75-110GHz
- Low Insertion Loss: 3.5dB
- High Isolation
- Switch Type: absorptive

Applications:

- THz Systems
- Test Equipment

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	75		110	GHz
Insertion Loss		3.5		dB
Isolation		33		dB
VSWR		2		:1
DC Voltage		5	8	V DC
Control Voltage		0/+5		V
DC Current		23		mA
Switch type	Absorptive			

Absolute Maximum Ratings :

Parameter	Value	Units
Supply Bias Voltage	TBD	V
RF Input Power	TBD	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

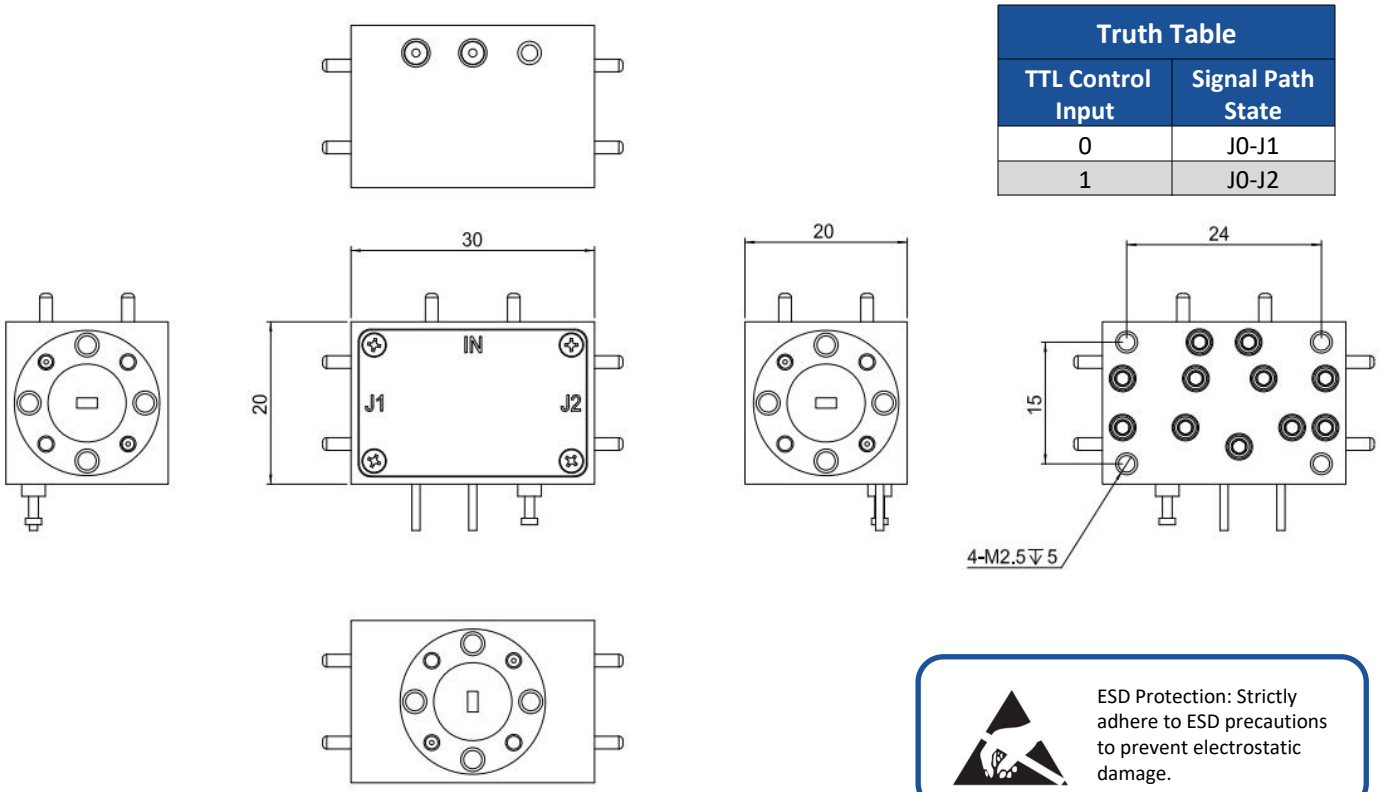
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Mechanical Specifications:

Description	Parameter	Units
Input Connector	WR-10/UG-387/U	
Output Connector	WR-10/UG-387/U	
Control Bias	Solder Pin	
Size	30*20*20	mm

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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

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

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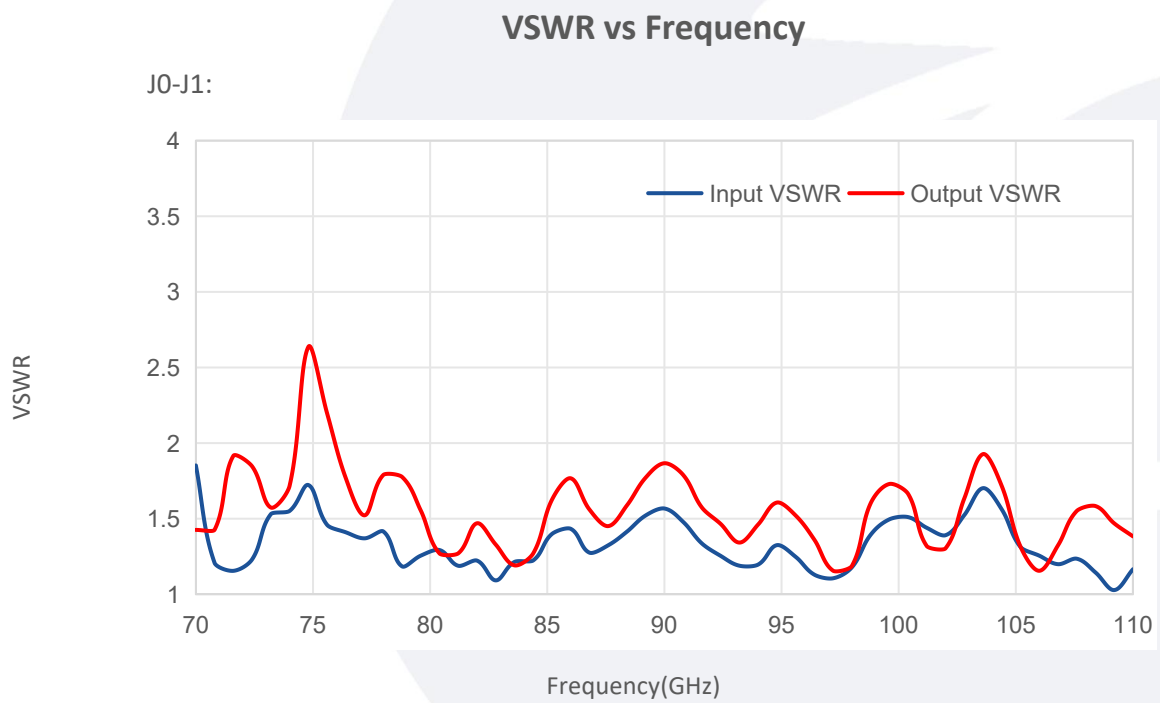
Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-10		+65	℃
Non-operating Temperature	-45		+85	℃
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-075110-10	Absorptive,E-band Waveguide Switch 75-110GHz,SPDT,WR-10/UG-387/U	Rev.1.0

Typical Performance Data:

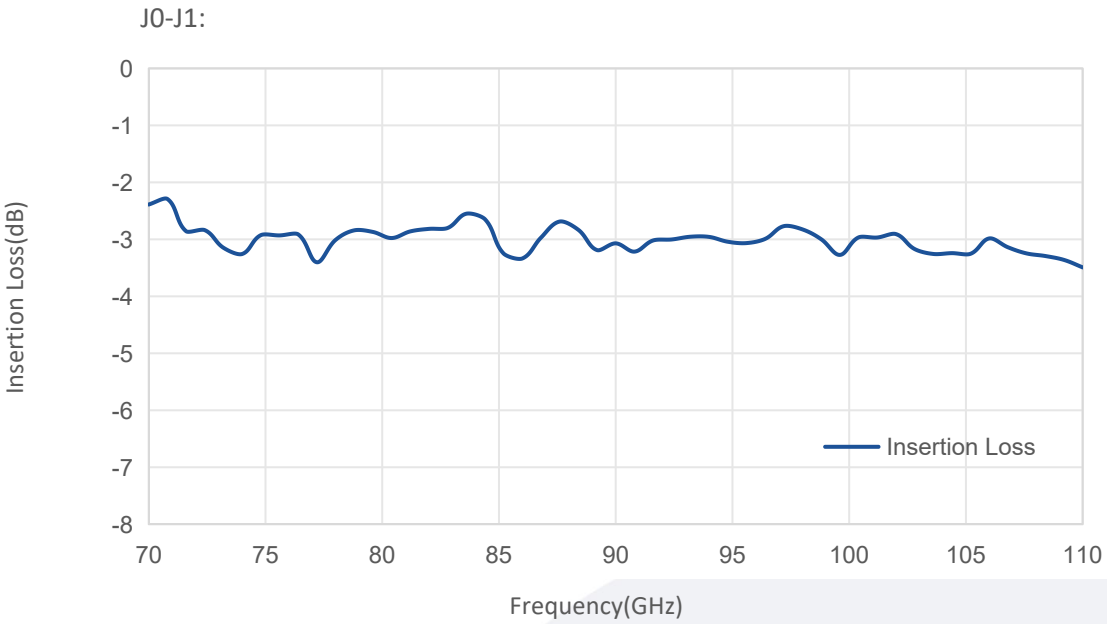


Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

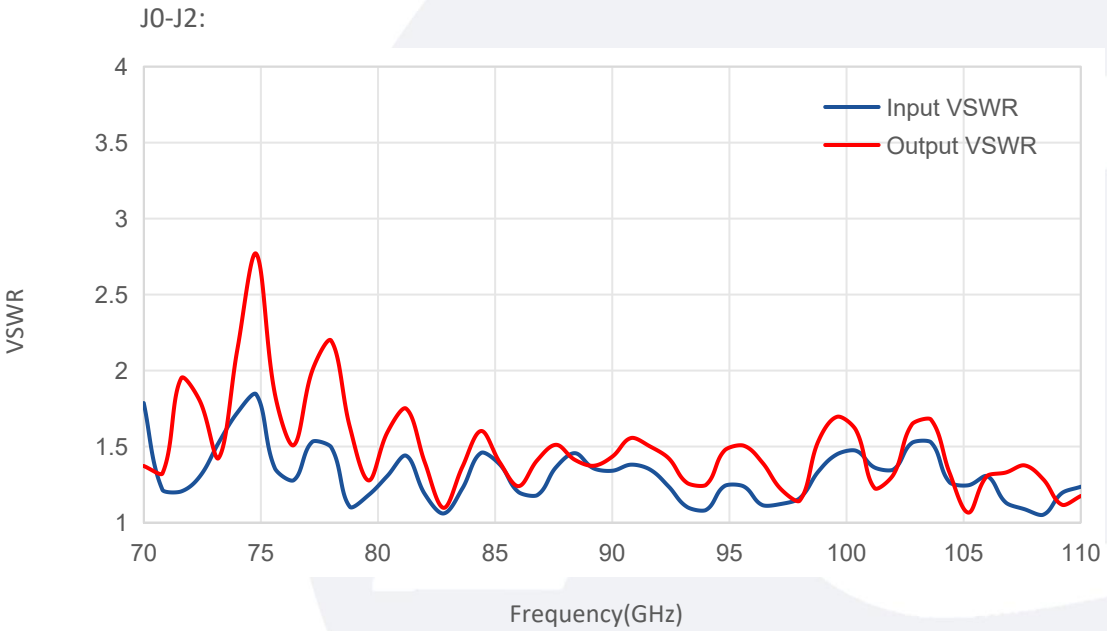
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Typical Performance Data:

Insertion Loss vs Frequency



VSWR vs Frequency

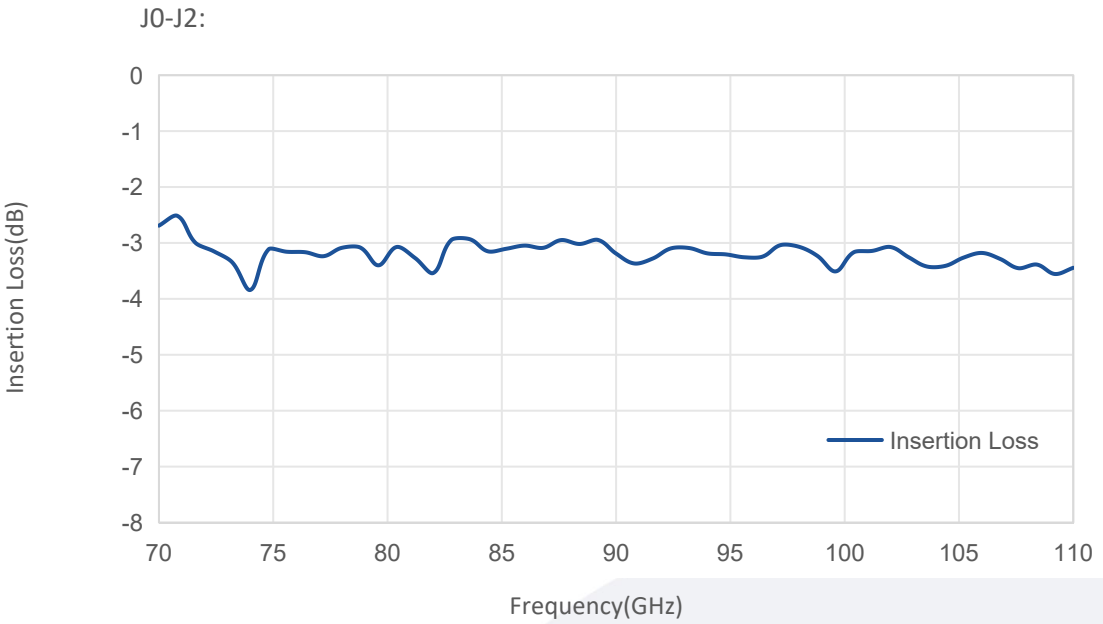


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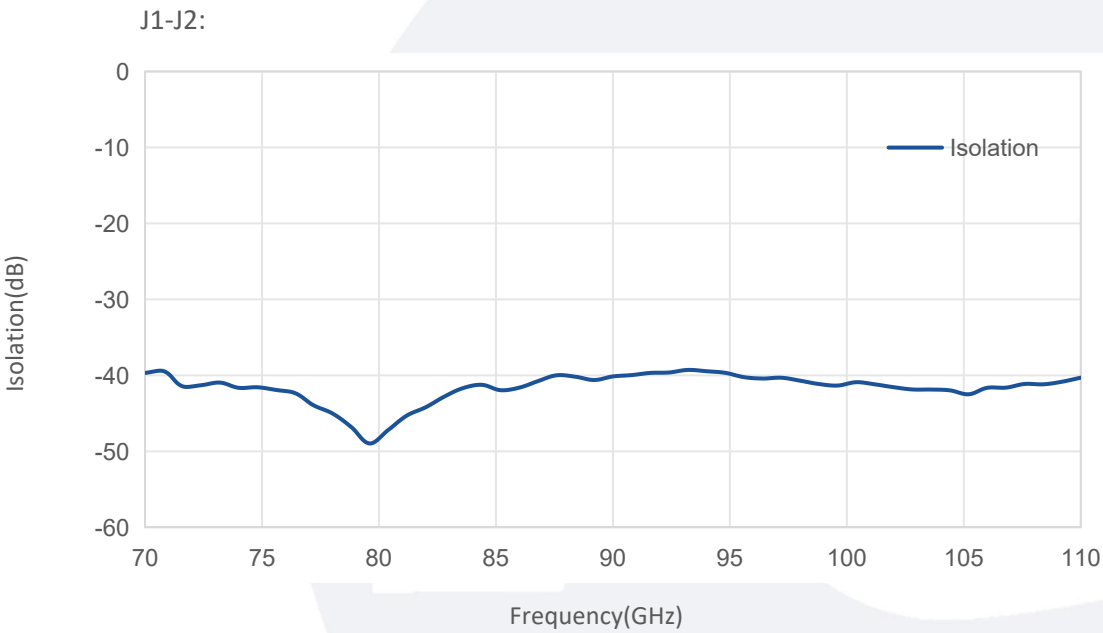
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Typical Performance Data:

Insertion Loss vs Frequency



Isolation vs Frequency



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