Suzhou Talent Microwave,Inc
sales@talentmw.com
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V-Band Up/Down-conversion Extender

50-75GHz/WR-15 Model: TLUDCM-050075-04-15

TLUDCM-050075-04-15 Up/Down-conversion Extenders are a dedicated Test & Measurement solution for extending the range of your signal source to 50-75 GHz.

Features:

- Frequency range: 50-75 GHz
- Conversion Gain: -10dB Typ
- Unconditional stability

Applications:

- Frequency extenders for communication systems measurement
- 5G Backhaul Equipment Testing
- Antenna Testing
- 6G system chip measurement

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
RF Frequency range	50		75	GHz
LO Input Frequency	12.5		18.75	GHz
IF Input Frequency	DC		26.5	GHz
LO Input Power	3	5	7	dBm
Multiplication Factor	4			
Mixer Type	Fundamental Mixer			
Conversion Gain		-10		dB
Input P1dB		6		dBm
AC Supply Voltage	90	220	240	V AC

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Mechanical Specifications:

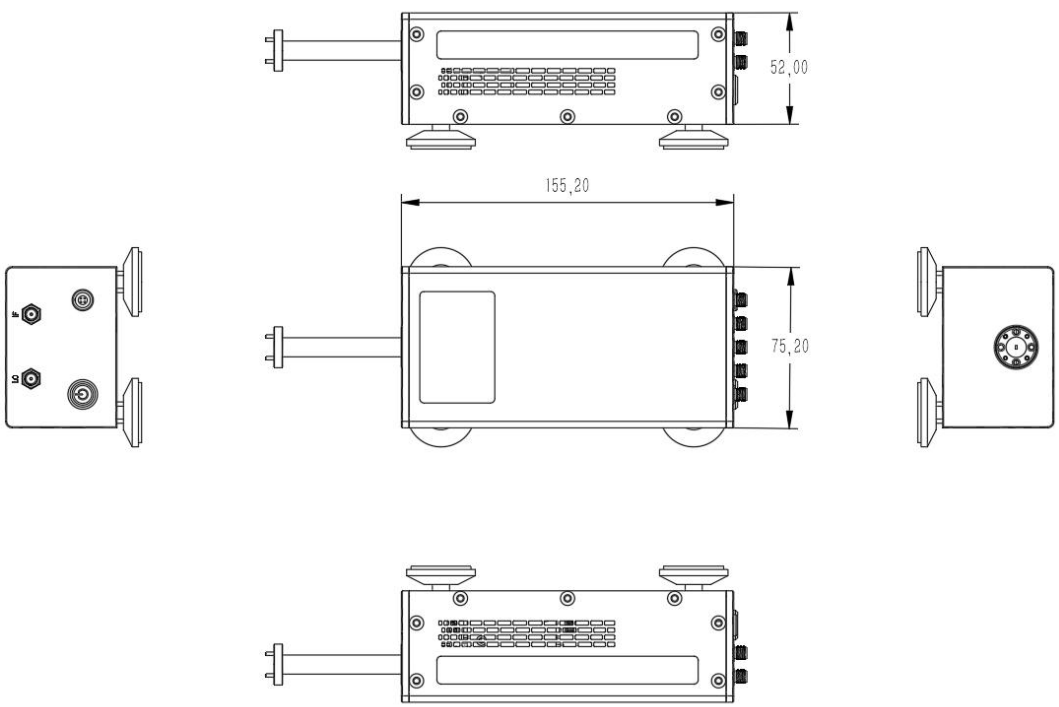
Parameter	Value	Units
RF Input Ports	WR-15/UG-385/U	
IF Ports	2.92mm Female	
LO Input Connector	SMA Female	
Material	Aluminum	
Finish	Spray gray paint	
Power Supply Pin	FGG 0B 4 Core	
Size	155.2*75.2*52	mm

Absolute Maximum Ratings :

Parameter	Value
IF/RF Input Power	+12 dBm
LO Input Power	+10 dBm
Supply AC Voltage	+240 V AC
ESD sensitivity (HBm)	Class 0, passed 150V

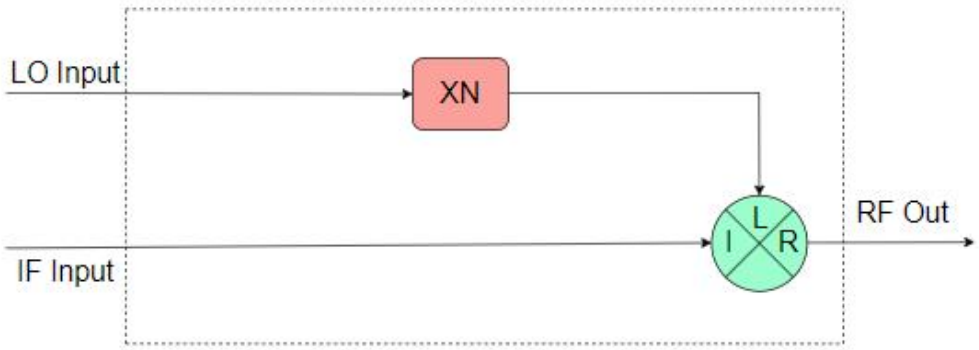
Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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Block Diagrams:



Envrionmental And Physical Characteristics:

Parameter	Min	Typ	Max	Units
Operating Temperature	0		+45	℃
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:

Part Number	Description	Revision
TLUDCM-050075-04-15	V-Band Up/Down-conversion Extender, 50-75GHz, Conversion Gain: -10 dB Typ	Rev.1.0

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External Accessories:

Part Number	Description	Revision
TMPA-050075-3737-15	Power Amplifier, 50-75 GHz, Gain:50dB Min, Psat:37 dBm Min, +24V DC,WR-15,With Heatsink	Rev.1.2
TLBF-CUST	Waveguide Band-pass Filter,Support customization	Rev.1.0
TL-15SHA25-T1	Standard Gain Horn Antenna, 50-75GHz,Gain: 25dBi Typ.	Rev.1.0
TMLA-050075-3840-15	Low Noise Amplifier,50-75GHz, Noise Figure:3.0dB, Gain:38dB,+12V DC,WR-15	Rev.1.1

