泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
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V–Band VNA Frequency Extender

50-75GHz /WR-15

Model: TLVE-5075-10-S

TLVE-5075-10-S frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 50-75 GHz.

Features:

- Frequency range: 50-75 GHz
- Port Output Power (No Attenuation): 10dBm Min
- Dynamic Range @10Hz BW: 110dB Min
- Unconditional stability

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	50		75	GHz
Test Port Output Power	10			dBm
Uncalibrated raw port Return Loss	10			dB
Dynamic Range @10Hz BW	110			dB
Directivity	10			dB
RF Input Frequency	8.33		12.5	GHz
RF Input Power	3	5	7	dBm
RF Multiplication Factor		6		
LO Input Frequency	8.33		12.5	GHz
LO Input Power	3	5	7	dBm
LO Multiplication Factor		6		
IF Frequency Range	1		1000	MHz
Amplitude Stability @300Hz BW			±0.1	dB
Phase Stability @300Hz BW			±2	°

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Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Effective Directionality@10Hz BW	35			dB
Payload Matching@10Hz BW	40			dB
ReflectionTracking@10Hz BW			±0.1	dB
Transmission Tracking@10Hz BW			±0.05	dB
Output Harmonic Suppression	15			dB
Power Consumption			10	W

Mechanical Specifications:

Parameter	Value
RF/LO Input Connector	SMA Female
MMEA/REF IF Output Connector	SMA Female
Test Port Connector	WR-15/UG-385/U
Power Supply Pin	Type C
Size	100x70x40mm

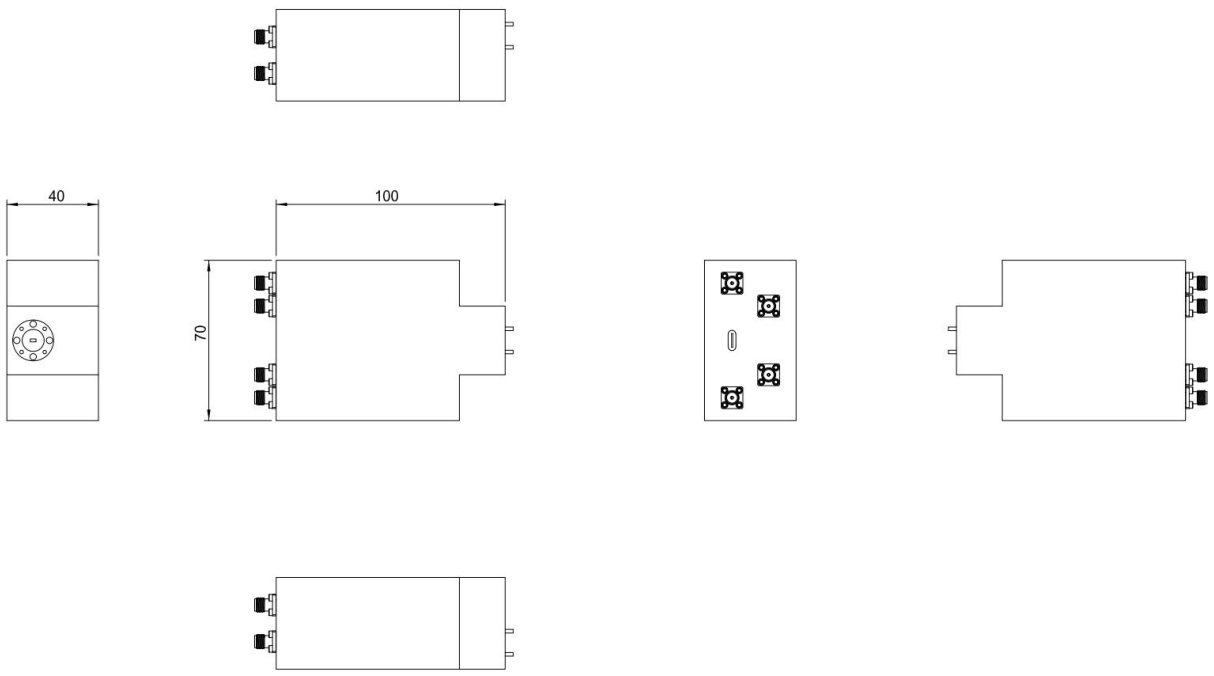
Absolute Maximum Ratings :

Parameter	Value	Units
RF/LO Port Damage Level	+10	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

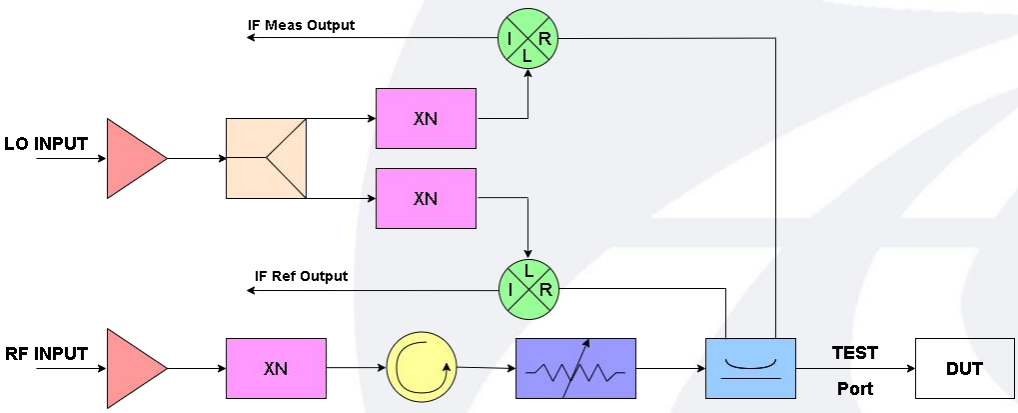
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Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Block Diagrams:



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Envrionmental And Physical Characteristics:

Parameter	Value	Units
Operating Temerature	0 to +45	℃
Storage Temerature	-55 to +125	℃
Material	Aluminum	
Finish	Gray spray paint	

Ordering Information:

Part Number	Description	Revision
TLVE-5075-10-S	V-band VNA Frequency Extender, 50-75 GHz, Output Power:10dBm Min., Dynamic Range:110 dB Min, Magnitude Stability @300 Hz BW:±0.1dB,Phase Stability @300 Hz BW:±2°	Rev.1.1

Components Included:

Part Number	Description	Quantity
S1-SMAMSMAM-1.2m	COAXIAL CABLE ASSEMBLY	4 PCS
TL-Type C	AC-to-DC Power Adapter	2 PCS
Calibration kit	WR15	1PCS