

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:

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

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	50		75	GHz
测试端口输出功率 Test Port Output Power	10			dBm
未校准的原始端口回波 Uncalibrated raw port Return Loss	10			dB
动态范围 Dynamic Range @ 10Hz BW	110			dB
原始方向性 Directivity	10			dB
射频输入频率 RF Input Frequency	8.33		12.5	GHz
射频输入功率 RF Input Power	3	5	7	dBm
RF倍频次数 RF Multiplication Factor		6		
本振输入频率 LO Input Frequency	8.33		12.5	GHz
本振输入功率 LO Input Power	3	5	7	dBm
LO倍频次数 LO Multiplication Factor		6		
中频频率范围 IF Frequency Range	1		1000	MHz
幅度稳定度 Stability @ 300 Hz BW(12H)			±0.1	dB
相位稳定度 Phase Stability @ 300 Hz BW(12H)			±2	°
有效方向性 Effective Directionality@10Hz BW	35			dB
有效负载匹配 Payload Matching@10Hz BW	40			dB
反射追踪 ReflectionTracking@10Hz BW			±0.1	dB
传输追踪 Transmission Tracking@10Hz BW			±0.05	dB
端口输出谐波抑制Output harmonic suppression	15			dB
功耗 Power Consumption			10	W

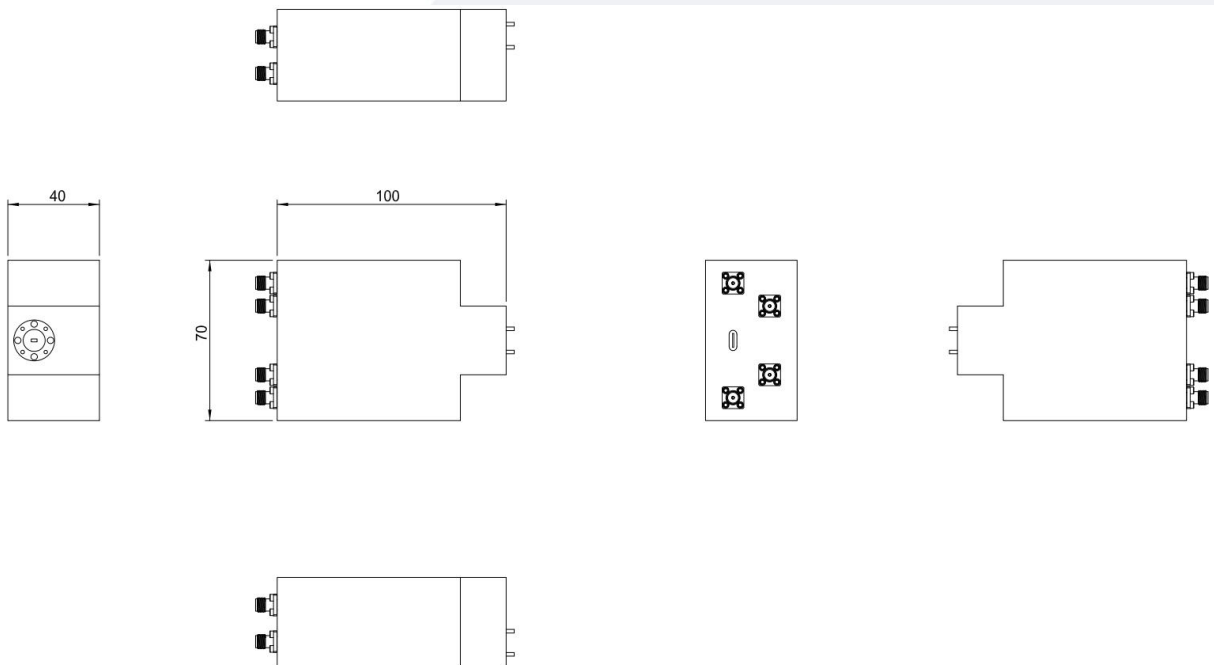
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value
RF/LO输入接口 RF/LO Input Connector	SMA Female
MEA/REF IF输出接口 MEA/REF IF Output Connector	SMA Female
测试端口 Test Port Connector	WR-15/UG-385/U
供电 Power Supply Pin	Type C
尺寸 Size	100x70x40mm

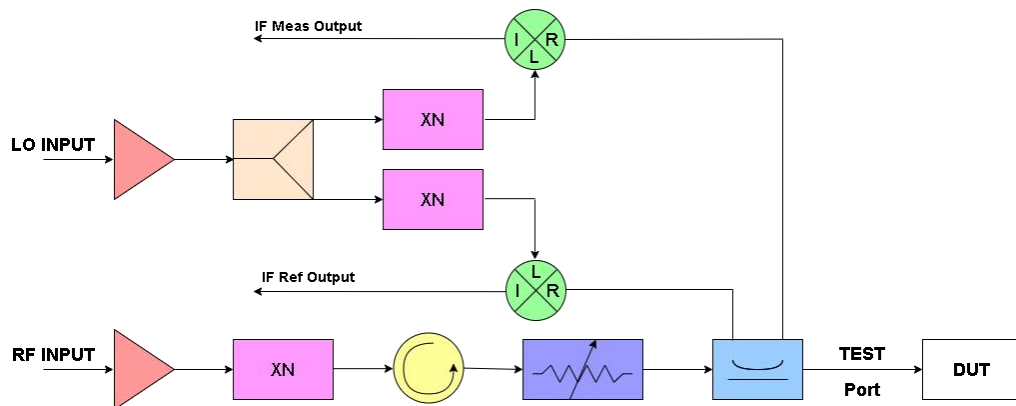
绝对最大值 Absolute Maximum Ratings :

描述 Description	参数 Parameter	单位 Units
RF/LO端损坏等级 RF/LO Port Damage Level	+10	dBm
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

外形图 Outline Drawing: Unit:mm



原理框图 Block Diagrams:



环境和物理特性 Environional And Physical

描述 Description	参数 Parameter	单位 Units
操作温度 Operating Temperature	0 To +45	°C
存储温度 Storage Temperature	-55 to +125	°C
材质 Material	Al	
表面处理 Finish	Gray spray paint	

订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号 Revision
TLVE-5075-10-S	V-band VNA Frequency Extender, 50-75 GHz, Output Power:10 dBm Min., Dynamic Range:110 dB Min.,Magnitude Stability @ 300 Hz BW:±0.1dB(12H),Phase Stability @ 300 Hz BW:±2°(12H)	Rev.1.1

随货配件 Components Included:

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