

J-Band VNA Frequency Extender

220-330GHz /WR-3.4

Model: TLVE-220330-N10-S

TLVE-220330-N10-S frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 220-330 GHz.

Features:

- Ultra Wide Band: 220-330 GHz
- Port Output Power (No Attenuation): -10 dBm Min
- Dynamic Range @ 10 Hz BW: 90dB Min
- Unconditional stability

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	220		330	GHz
Test Port Output Power	-10			dBm
Uncalibrated raw port Return Loss	10			dB
Dynamic Range @ 10Hz BW	90			dB
Directivity	10			dB
RF Input Frequency	12.22		18.33	GHz
RF Input Power	3	5	7	dBm
RF Multiplication Factor		18		
LO Input Frequency	9.16		13.75	GHz
LO Input Power	3	5	7	dBm
LO Multiplication Factor		24		
IF Frequency Range	1		1000	MHz
Stability @ 300 Hz BW(12H)			±0.25	dB
Phase Stability @ 300 Hz BW(12H)			±3.5	°
Effective Directionality@10Hz BW	30			dB
Payload Matching@10Hz BW	40			dB

ReflectionTracking@10Hz BW			±0.3	dB
Transmission Tracking@10Hz BW			±0.15	dB
Output harmonic suppression	10			dB
Power Consumption			15	W

Mechanical Specifications:

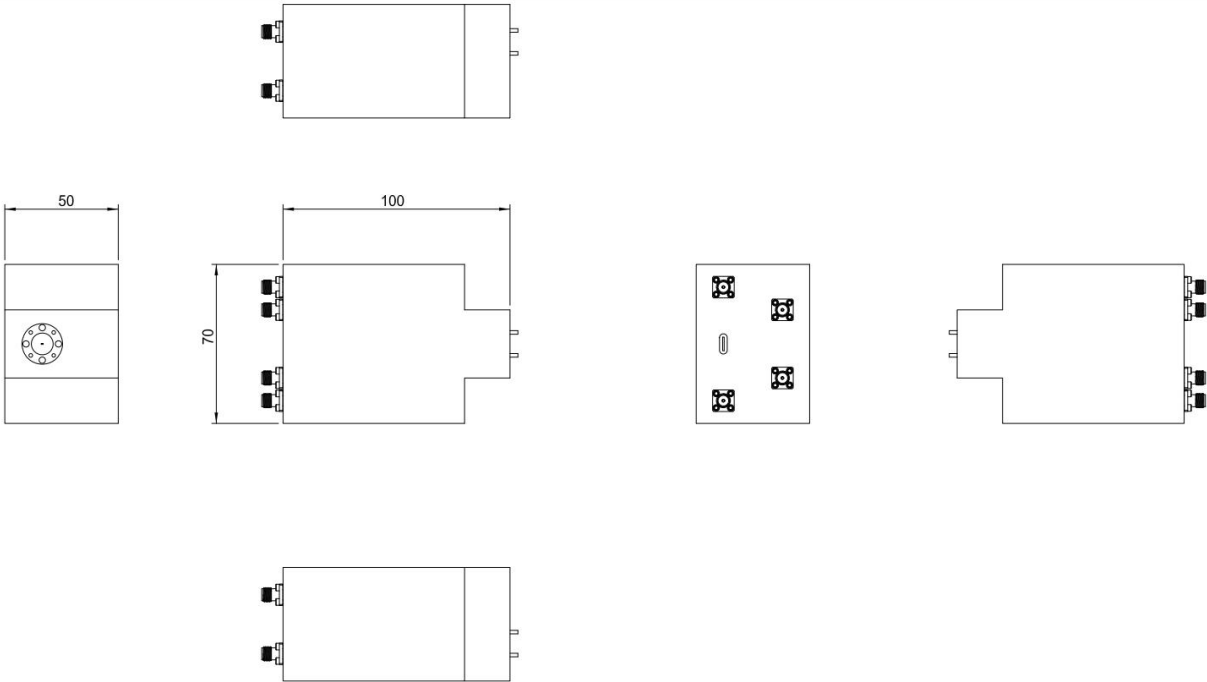
Parameter	Value
RF/LO Input Connector	SMA Female
MEA/REF IF Output Connector	SMA Female
Test Port Connector	WR-3.4/UG-387/U
Power Supply Pin	Type C
Size	100x70x50mm

Absolute Maximum Ratings :

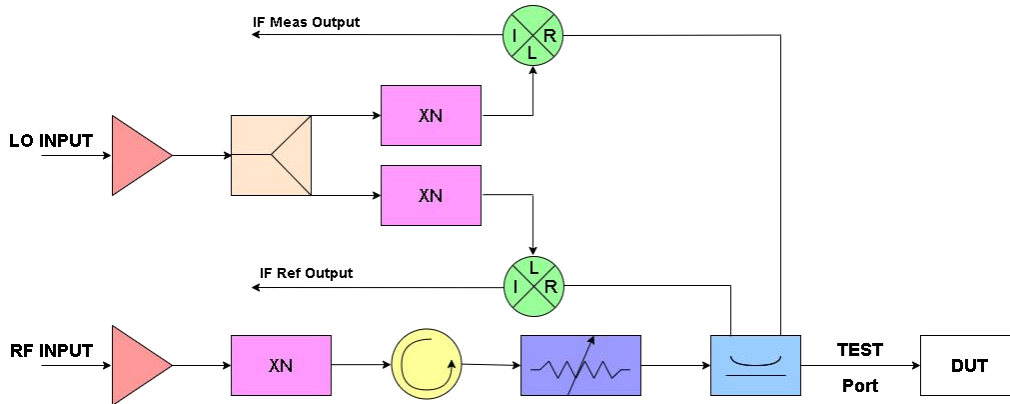
Description	Parameter	Units
RF/LO Port Damage Level	+10	dBm
ESD sensitivity (HBm)	Class 0, passed 150V	

Outline Drawing:

Unit:mm



Block Diagrams:



Environmental And Physical Characteristics:

Description	Parameter	Units
Operating Temperature	0 To +45	°C
Storage Temperature	-55 to +125	°C
Material	Al	
Finish	Gray spray paint	

Ordering Information:

Part Number	Description	Revision
TLVE-220330-N10-S	J-band VNA Frequency Extender, 220-330 GHz, Output Power:-10 dBm Min.,Dynamic Range:90 dB Min.,Magnitude Stability @ 300 Hz BW:±0.25dB(12H),Phase Stability @300Hz BW:±3.5°(12H)	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	WR3.4	1PCS