

W-Band VNA Frequency Extender

75-110GHz /WR-10

Model: TLVE-75110-6-S

TLVE-75110-6-S frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 75-110 GHz.

Features:

- Ultra Wide Band: 75-110 GHz
- Port Output Power (No Attenuation): 6 dBm Min
- Dynamic Range @ 10 Hz BW: 110dB Min
- Unconditional stability

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	75		110	GHz
Test Port Output Power	6			dBm
Uncalibrated raw port Return Loss	10			dB
Dynamic Range @ 10Hz BW	110			dB
Directivity	10			dB
RF Input Frequency	12.5		18.33	GHz
RF Input Power	3	5	7	dBm
RF Multiplication Factor		6		
LO Input Frequency	12.5		18.33	GHz
LO Input Power	3	5	7	dBm
LO Multiplication Factor		6		
IF Frequency Range	1		1000	MHz
Stability @ 300 Hz BW(12H)			±0.1	dB
Phase Stability @ 300 Hz BW(12H)			±2	°
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

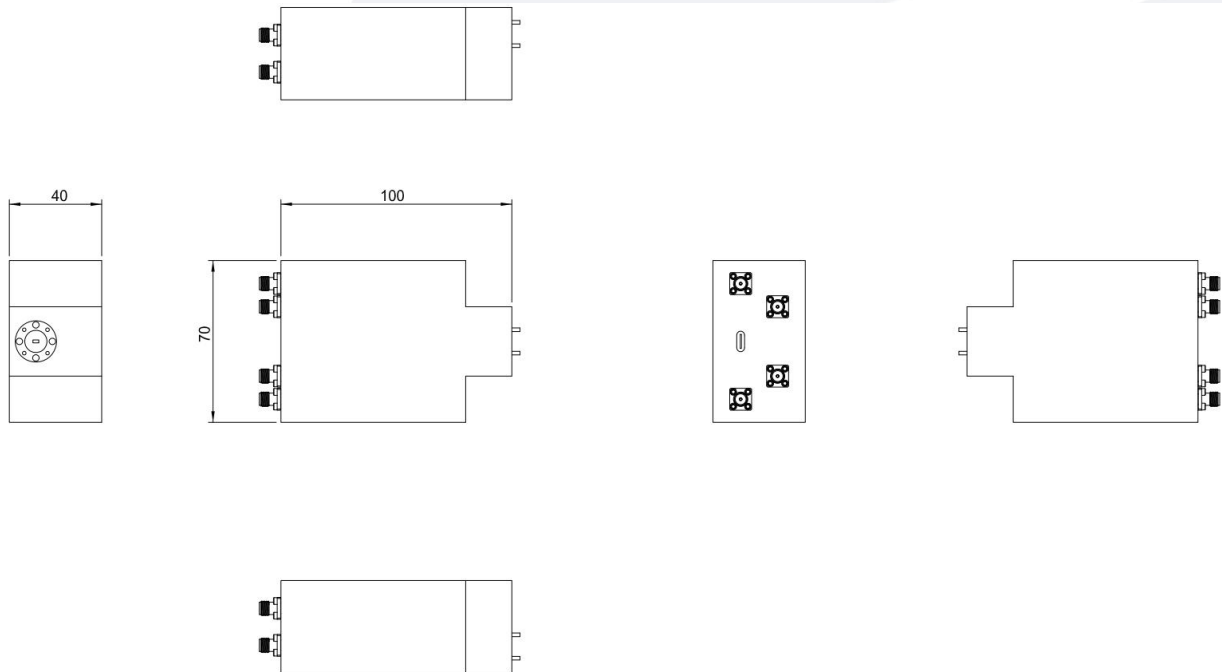
Mechanical Specifications:

Parameter	Value
RF/LO Input Connector	SMA Female
MEA/MEA/REF IF Output Connector	SMA Female
Test Port Connector	WR-10/UG-387/U
Power Supply Pin	Type C
Size	100x70x40mm

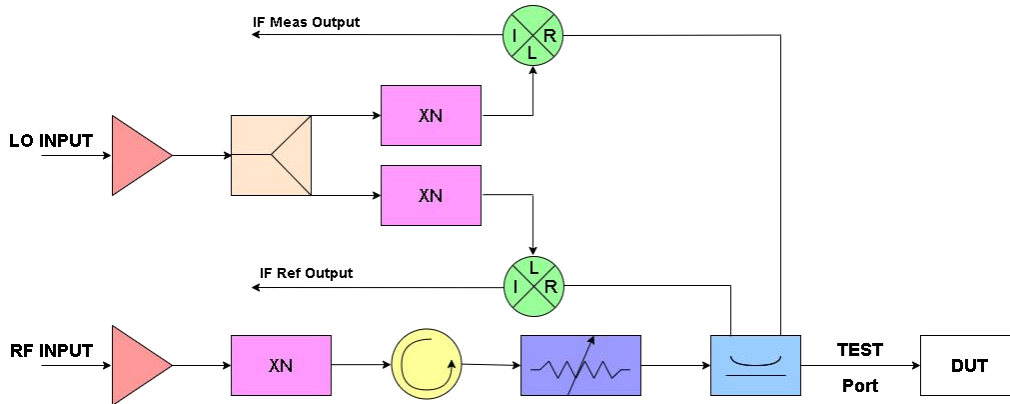
Absolute Maximum Ratings :

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-75110-6-S	W-band VNA Frequency Extender, 75-110 GHz, Output Power:6 dBm Min., Dynamic Range:110 dB Min.,Magnitude Stability @ 300Hz BW:±0.1dB(12H),Phase Stability @ 300Hz BW:±2°(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	WR10	1PCS