泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

G–Band VNA Frequency Extender

140-220GHz/WR-5.1

Model: TLVE-140220-N3-S

TLVE-140220-N3-S frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 140-220 GHz.

Features:

- Frequency range: 140-220 GHz
- Port Output Power (No Attenuation): -3dBm Min
- Dynamic Range @10Hz BW: 100dB Min
- Unconditional stability

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	140		220	GHz
Test Port Output Power	-3			dBm
Uncalibrated raw port Return Loss	10			dB
Dynamic Range @10Hz BW	100			dB
Directivity	10			dB
RF Input Frequency	11.66		18.33	GHz
RF Input Power	3	5	7	dBm
RF Multiplication Factor		12		
LO Input Frequency	11.66		18.33	GHz
LO Input Power	3	5	7	dBm
LO Multiplication Factor		12		
IF Frequency Range	1		1000	MHz
Amplitude Stability @300Hz BW			±0.2	dB
Phase Stability @300Hz BW			±3	°
Effective Directionality@10Hz BW	30			dB
Payload Matching@10Hz BW	40			dB

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
ReflectionTracking@10Hz BW			±0.2	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/REF IF Output Connector	SMA Female
Test Port Connector	WR-5.1/UG-387/U
Power Supply Pin	Type C
Size	100x70x50mm

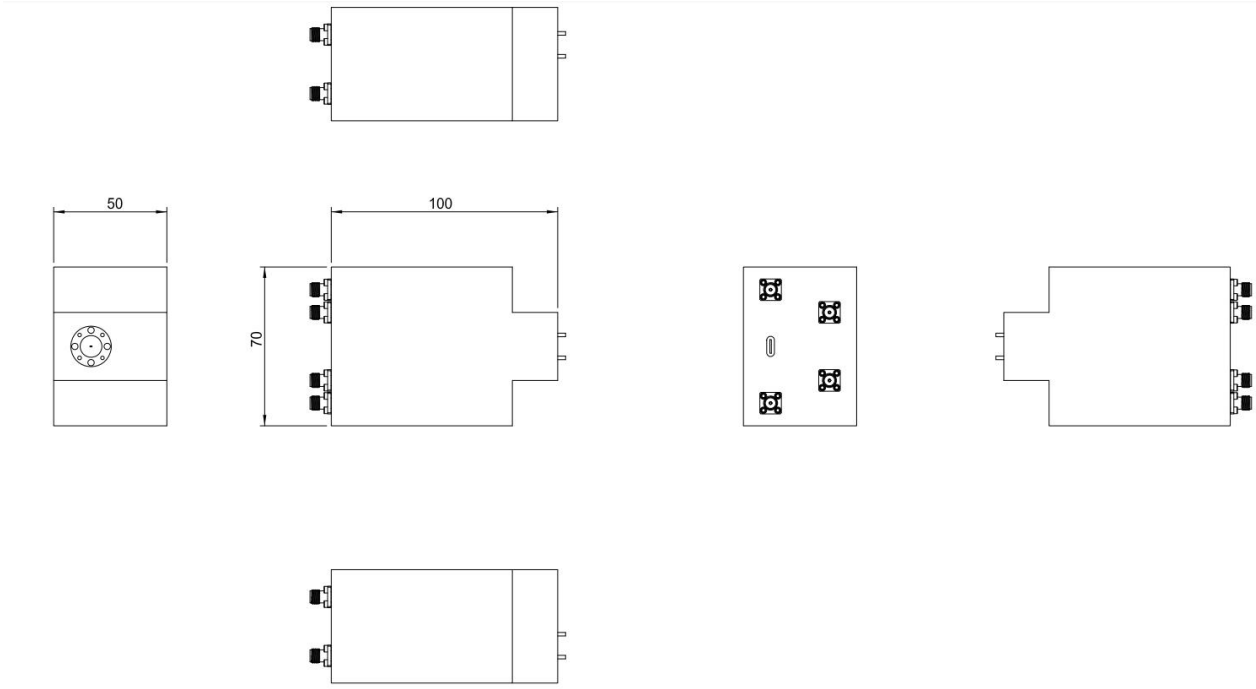
Absolute Maximum Ratings :

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

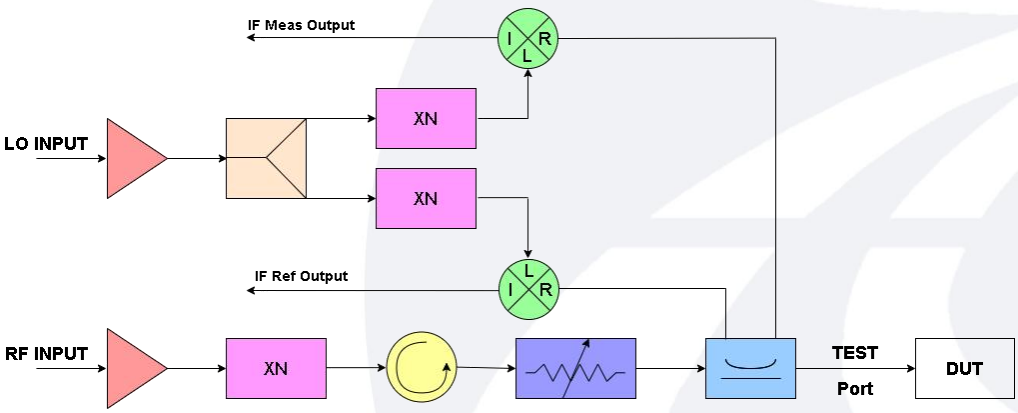
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Block Diagrams:



Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

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-140220-N3-S	W-band VNA Frequency Extender, 140-220GHz, Output Power: 6dBm Min., Dynamic Range: 100dB Min.,Magnitude Stability @300Hz BW:±0.2dB,Phase Stability @300Hz BW:±3°	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