

G-Band VNA Frequency Extender

140-220GHz/WR-5.1

Model: TLTE-140220-N3/TLRE-140220

TLTE-140220-N3/TLRE-140220 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: 140-220GHz
- Port Output Power: -3 dBm Typ
- Dynamic Range @10Hz BW: 120dB Typ
- 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		0		dBm
Dynamic Range @10Hz BW	110	120		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			
Conversion Loss of Receiver		13		dB
IF Frequency Range	1		1000	MHz
Amplitude Stability @300Hz BW		±0.2		dB
Phase Stability @300Hz BW		±6		°

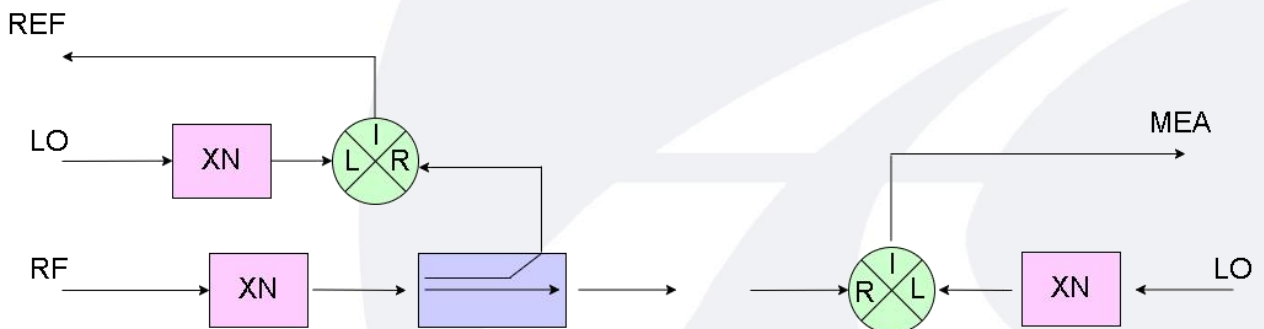
Mechanical Specifications:

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	FGG 0B 4 Core

Absolute Maximum Ratings :

Description	Parameter	Units
RF/LO Port Damage Level (Transmit Extender)	+10	dBm
RF Port Damage Level (Receiver Extender)	0	dBm
LO Port Damage Level (Receiver Extender)	+10	dBm
Supply Bias Voltage	+240 V AC	
ESD sensitivity (HBm)	Class 0, passed 150V	

Block Diagrams:



Envrionmental And Physical Characteristics:

Description	Parameter	Units
Operating Temerature	0 to +45	°C
Storage Temerature	-55 to +125	°C
Material	Aluminum	
Finish	Gray spray paint	

Ordering Information:

Part Number	Description	Revision
TLTE-140220-N3	G-band VNA Frequency Extender,140-220GHz,Output Power: 0dBm typ, Dynamic Range: 120dB typ.,Magnitude Stability @300Hz BW:±0.2dB,Phase Stability @300Hz BW:±6°	Rev.1.1
TLRE-140220	G-band Receiver Module,140-220GHz,Conversion Loss:13dB typ.	Rev.1.1

Components Included:

Part Number	Description	Quantity
S1-SMAMSMAM-1.2m	COAXIAL CABLE ASSEMBLY	4 PCS
TLACTDC-22012	AC-to-DC Power Adapter	1 PCS

Notes:

1. Dimensions and specifications may be changed without prior notice.
2. Standard Warranty:three years.