

VNA Frequency Extender

330-500GHz/WR-2.2

Model: TLTE-330500-N9/TLRE-330500

TLTE-330500-N9/TLRE-330500 frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 330-500 GHz.

Features:

- Frequency range: 330-500 GHz
- Port Output Power: -9 dBm Typ
- Dynamic Range @ 10 Hz BW: 100dB Typ
- Unconditional stability

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	330		500	GHz
Test Port Output Power		-9		dBm
Dynamic Range @10Hz BW		100		dB
RF Input Frequency	9.16		13.88	GHz
RF Input Power	3	5	7	dBm
RF Multiplication Factor	36			
LO Input Frequency	13.75		20.83	GHz
LO Input Power	3	5	7	dBm
LO Multiplication Factor	24			
Conversion Loss of Receiver		25		dB
IF Frequency Range	1		1000	MHz
Amplitude Stability @300Hz BW		±0.8		dB
Phase Stability @300Hz BW		±10		°

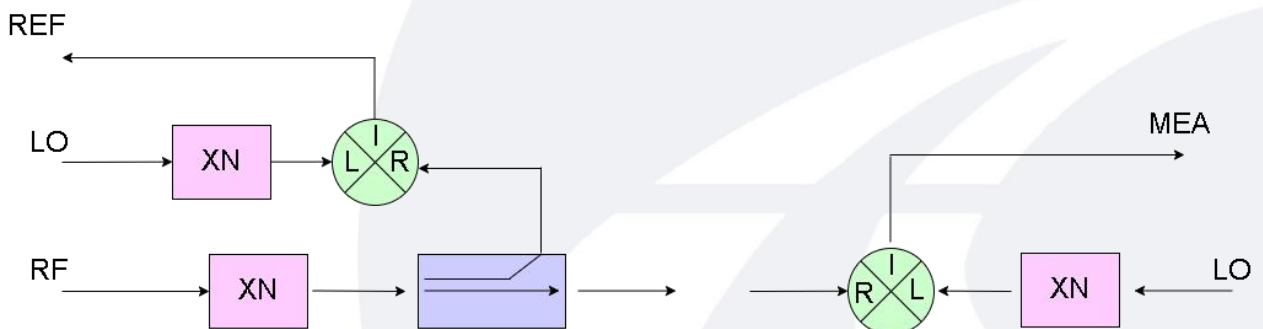
Mechanical Specifications:

Parameter	Value
RF/LO Input Connector	SMA Female
MEA/REF IF Output Connector	SMA Female
Test Port Connector	WR-2.2/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:



Environmental And Physical Characteristics:

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

Ordering Information:

Part Number	Description	Revision
TLTE-330500-N9	VNA Frequency Extender,330-500GHz,Output Power: -9dBm typ, Dynamic Range: 100dB typ.,Magnitude Stability @300Hz BW:±0.8dB,Phase Stability @300Hz BW:±10°	Rev.1.1
TLRE-330500	Receiver Module,330-500GHz,Conversion Loss: 25dB 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.