

Y-Band VNA Frequency Extender

170-260GHz /WR-4.3

Model: TLVE-170260-N7

TLVE-170260-N7 frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 170-260 GHz.

Features:

- Ultra Wide Band: 170-260 GHz
- Port Output Power (No Attenuation): 0 dBm Typ
- Dynamic Range @ 10 Hz BW: 105dB Typ
- Unconditional stability

Applications:

- VNA Frequency Extension
- Antenna measurements
- Material characterisation

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	170		260	GHz
Test Port Output Power		0		dBm
Test Port Input Power (Damage)			20	dBm
Output Power Attenuation (Option:Variable attenuators)	0		30	dB
Dynamic Range @ 10Hz BW	95	105		dB
RF Input Frequency	9.44		14.44	GHz
RF Input Power	3	5	7	dBm
RF Multiplication Factor		18		
LO Input Frequency	10.625		16.25	GHz
LO Input Power	3	5	7	dBm
LO Multiplication Factor		16		
IF Frequency Range	1		1000	MHz
Effective Directionality@10Hz BW	38			dB
Payload Matching@10Hz BW	40			dB
ReflectionTracking@10Hz BW		±0.02		dB
Transmission Tracking@10Hz BW		±0.04		dB
Amplitude Stability @300Hz BW;1h		±0.1		dB

Mechanical Specifications:

Parameter	Value
RF/LO Input Connector	SMA Female
MEA/REF IF Output Connector	SMA Female
Test Port Connector	WR-4.3/UG-387/U
Power Supply Pin	FGG 0B 4 Core
Size	240*83*68mm

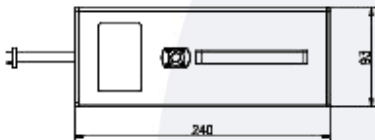
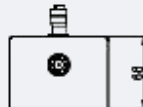
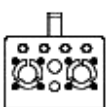
Absolute Maximum Ratings :

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

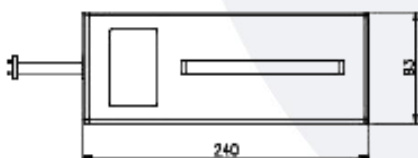
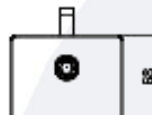
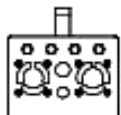
Outline Drawing:

Unit:mm

Regulatory Compliance:



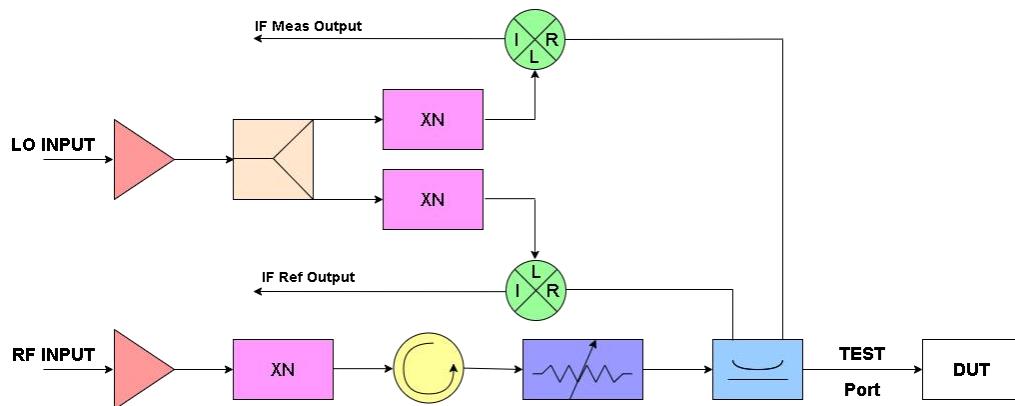
TLVE-170260-N7-A



TLVE-170260-N7



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-170260-N7	Y-band VNA Frequency Extender, 170-260 GHz, Output Power: 2 dBm typ., Dynamic Range:105 dB typ.	Rev.1.1
TLVE-170260-N7-A	Y-band VNA Frequency Extender, 170-260 GHz, Output Power: 0 dBm typ., Dynamic Range:105 dB typ.	Rev.1.1

Components Included:

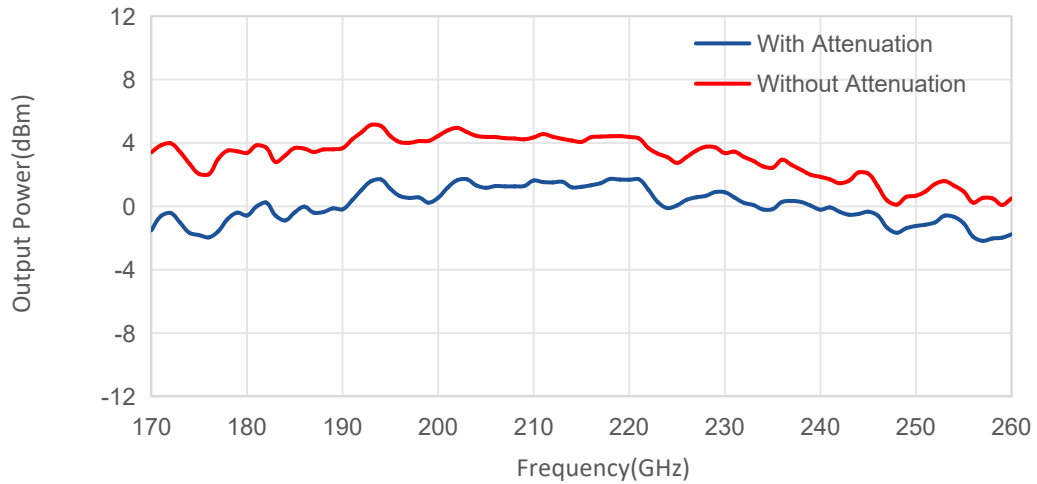
Part Number	Description	Quantity
S1-SMAMSMAM-1.2m	COAXIAL CABLE ASSEMBLY	4 PCS
TLACTDC-22012	AC-to-DC Power Adapter	1 PCS

Notes:

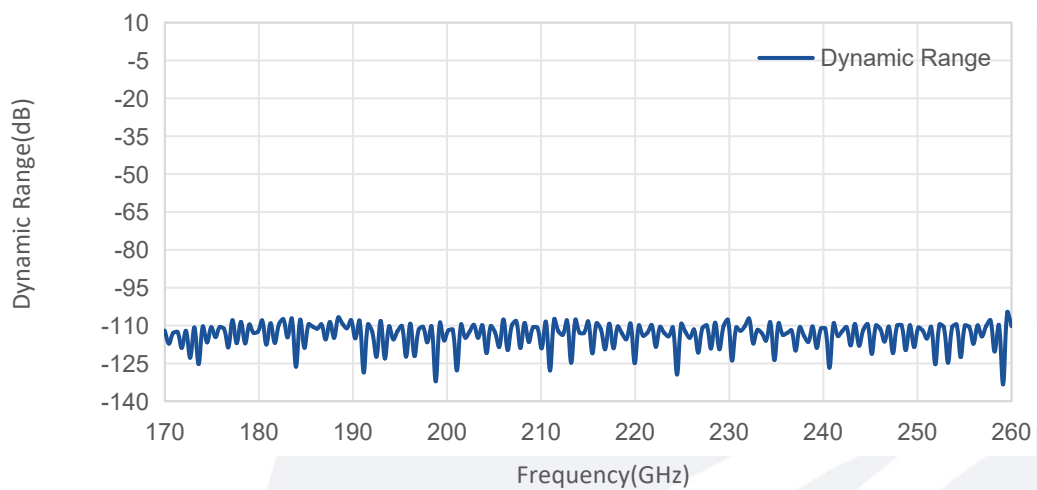
1. Dimensions and specifications may be changed without prior notice.
2. Standard Warranty:three years.

Typical Performance Data:

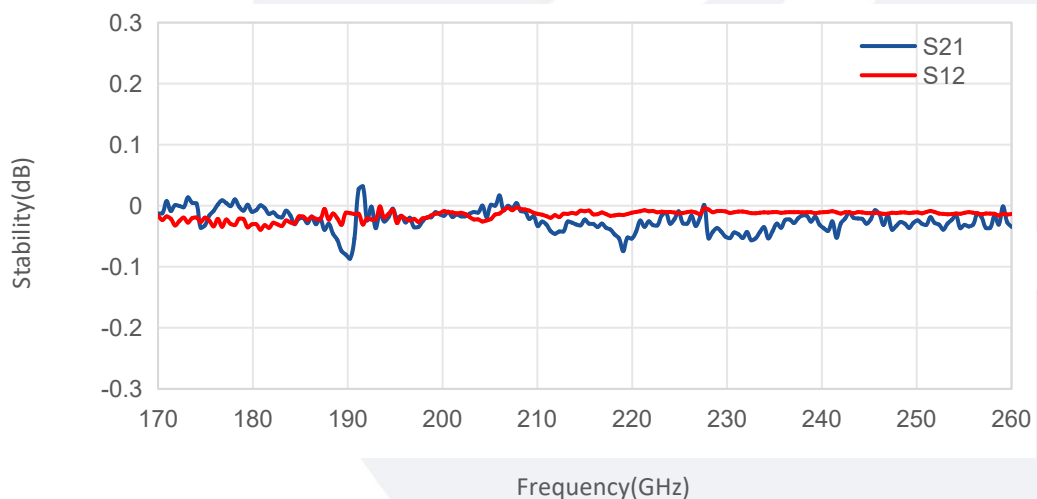
Output Power vs Frequency



Dynamic Range vs Frequency



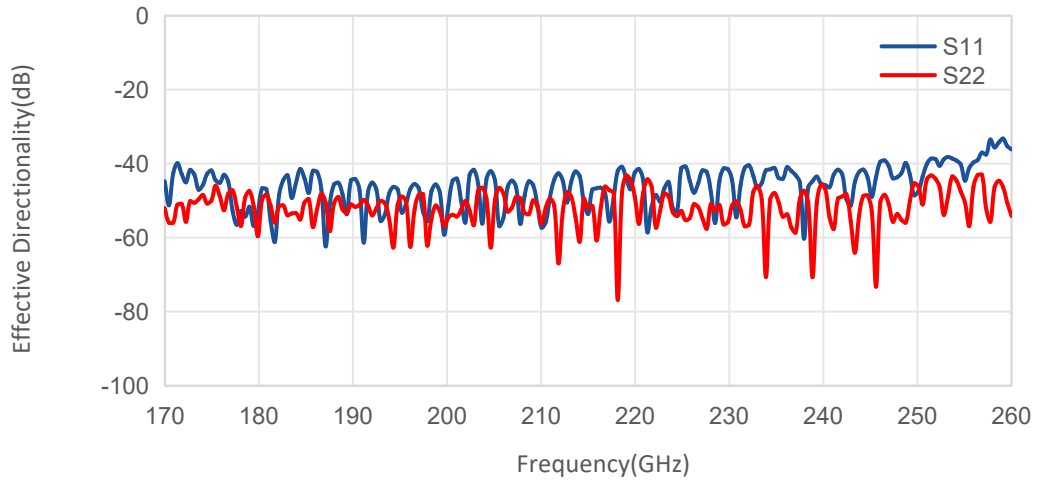
Stability@1h vs Frequency



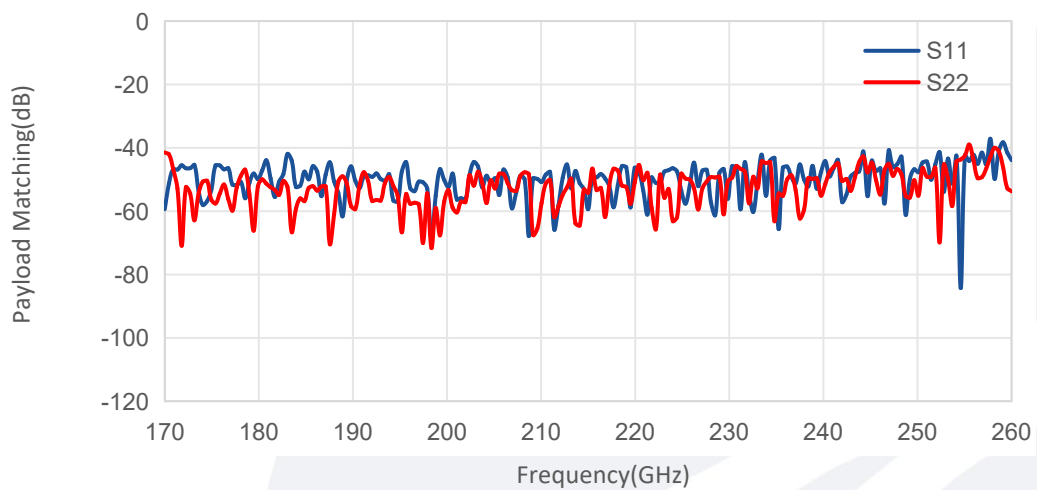
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

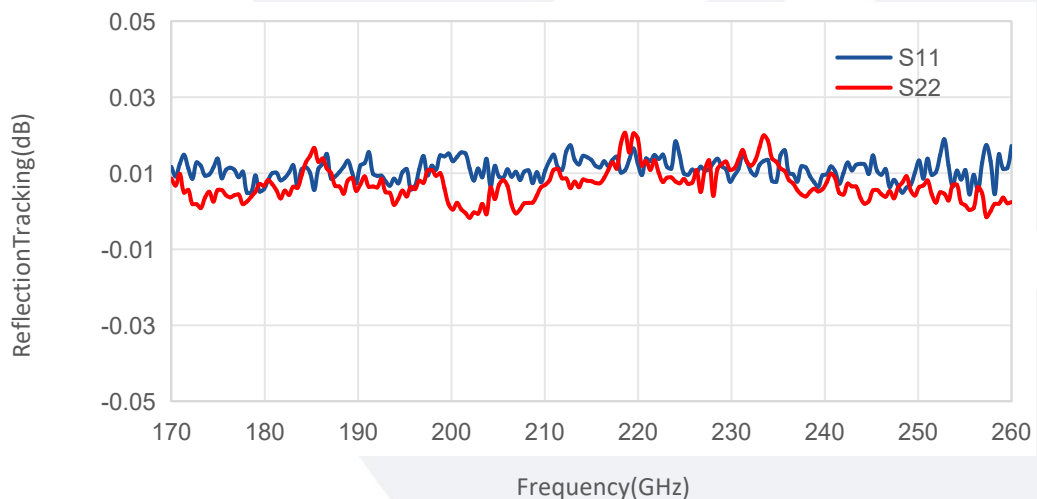
Effective Directionality vs Frequency



Payload Matching vs Frequency



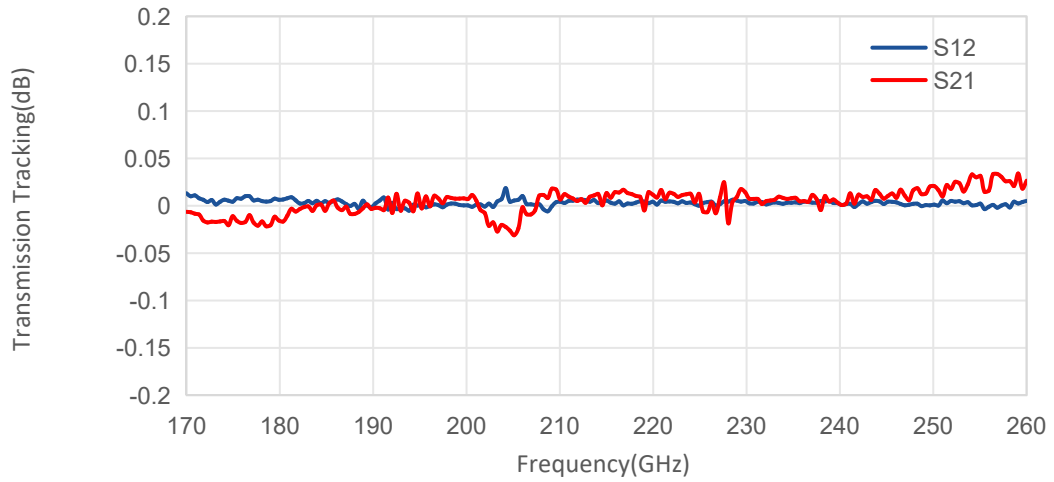
ReflectionTracking vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Transmission Tracking vs Frequency



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