

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

电气特性 Electrical Characteristics:

参数 Parameter	Min	Typ	Max	单位 Units
频率范围 Frequency range	170		260	GHz
测试端口输出功率 Test Port Output Power		0		dBm
测试端口输入功率 Test Port Input Power (Damage)			20	dBm
输出功率衰减 Output Power Attenuation (Option:Variable attenuators)	0		30	dB
动态范围 Dynamic Range @ 10Hz BW	95	105		dB
射频输入频率 RF Input Frequency	9.44		14.44	GHz
射频输入功率 RF Input Power	3	5	7	dBm
RF倍频次数 RF Multiplication Factor		18		
本振输入频率 LO Input Frequency	10.625		16.25	GHz
本振输入功率 LO Input Power	3	5	7	dBm
LO倍频次数 LO Multiplication Factor		16		
中频频率范围 IF Frequency Range	1		1000	MHz
有效方向性 Effective Directionality@10Hz BW	38			dB
有效负载匹配 Payload Matching@10Hz BW	40			dB
反射追踪 ReflectionTracking@10Hz BW		±0.02		dB
传输追踪 Transmission Tracking@10Hz BW		±0.04		dB
幅度稳定度 Amplitude Stability @300Hz BW;1h		±0.1		dB

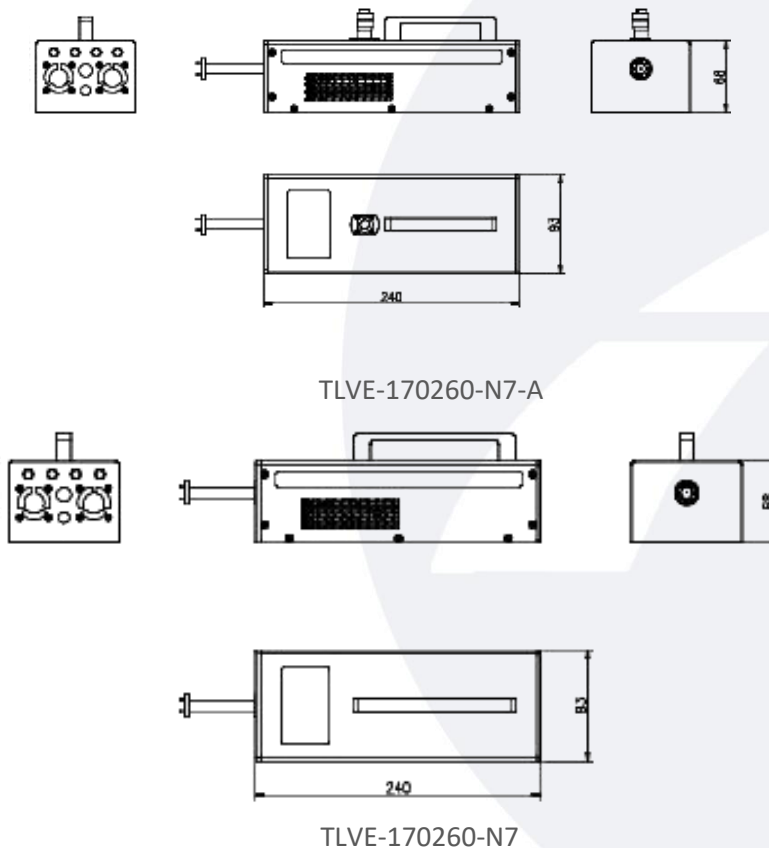
机械特性 Mechanical Specifications:

参数 Parameter	指标 Value
RF/LO输入接口 RF/LO Input Connector	SMA Female
MEA/REF IF输出接口 MEA/REF IF Output Connector	SMA Female
测试端口 Test Port Connector	WR-4.3/UG-387/U
供电 Power Supply Pin	FGG 0B 4 Core
尺寸 Size	240*83*68mm

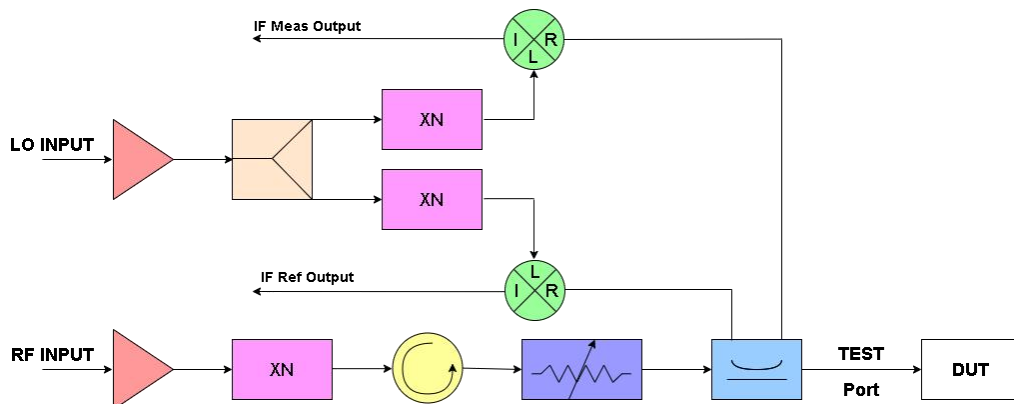
绝对最大值 Absolute Maximum Ratings :

描述 Description	参数 Parameter	单位 Units
RF/LO端损坏等级 RF/LO Port Damage Level	+10	dBm
供电偏置 Supply Bias Voltage	+240 V AC	
ESD灵敏度 ESD sensitivity (HBm)	Class 0, passed 150V	

外形图 Outline Drawing: Unit:mm



原理框图 Block Diagrams:



环境和物理特性 Environmental And Physical

描述 Description	参数 Parameter	单位 Units
操作温度 Operating Temperature	0 To +45	°C
存储温度 Storage Temperature	-55 to +125	°C
材质 Material	Al	
表面处理 Finish	Gray spray paint	

订货信息 Ordering Information:

标准型号 Part Number	描述 Description	版本号 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

随货配件 Components Included:

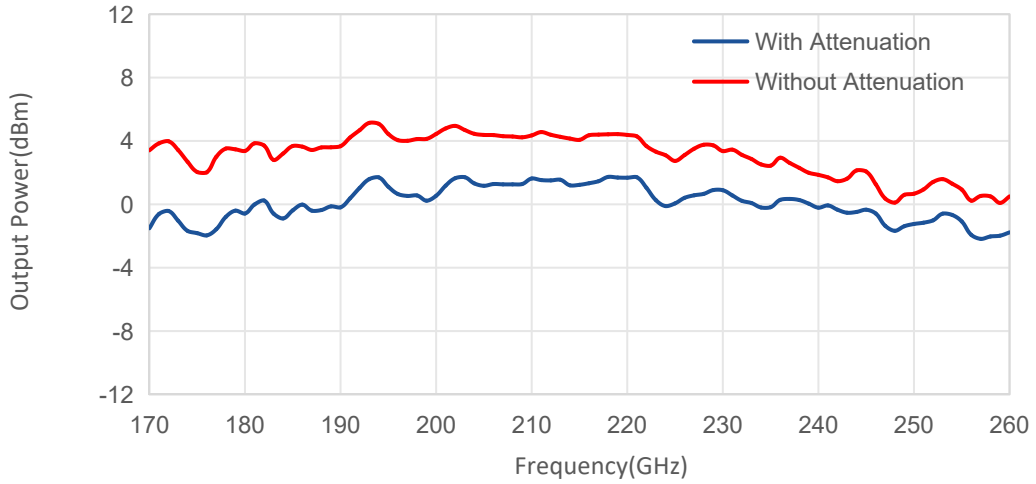
标准型号 Part Number	描述 Description	数量 Quantity
S1-SMAMSMAM-1.2m	COAXIAL CABLE ASSEMBLY	4 PCS
TLACTDC-22012	AC-to-DC Power Adapter	1 PCS

Notes:

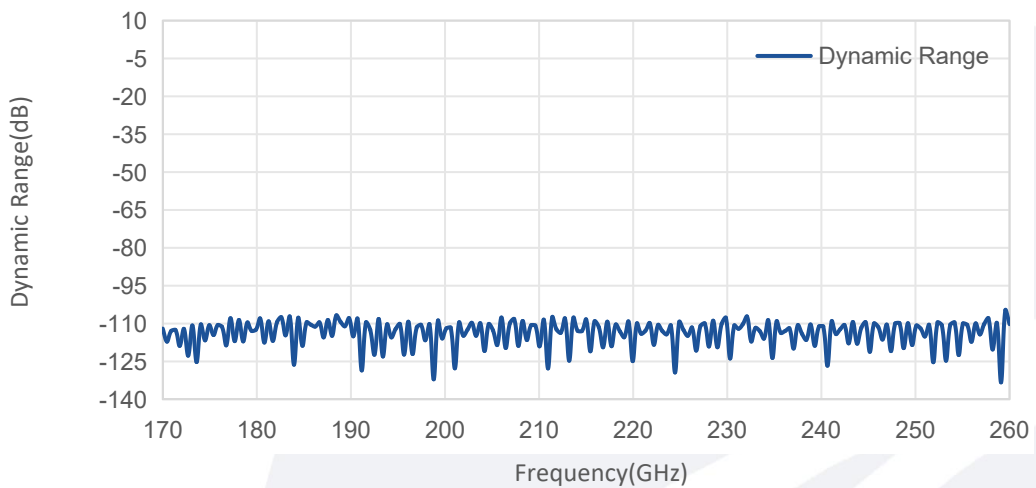
1. Dimensions and specifications may be changed without prior notice.
2. Standard Warranty:three years.

典型曲线 Typical Performance Data:

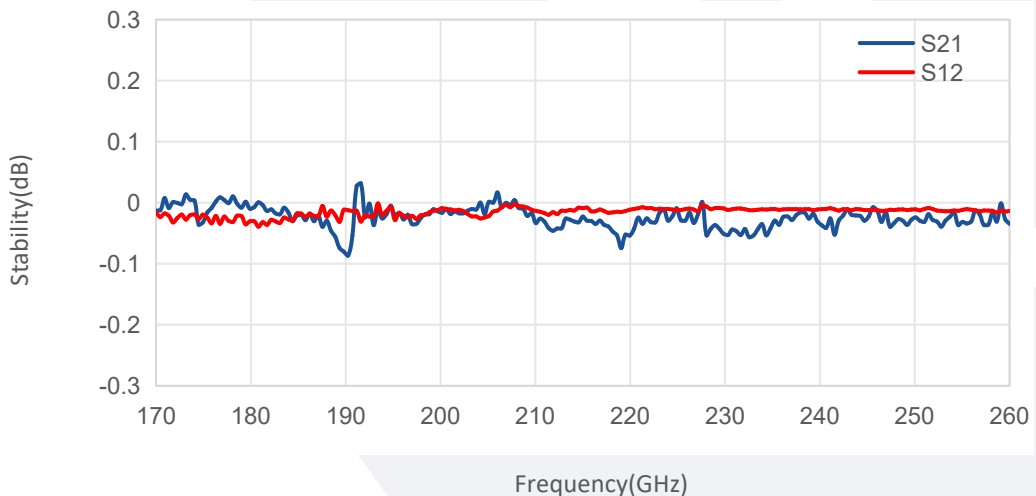
Output Power vs Frequency



Dynamic Range vs Frequency



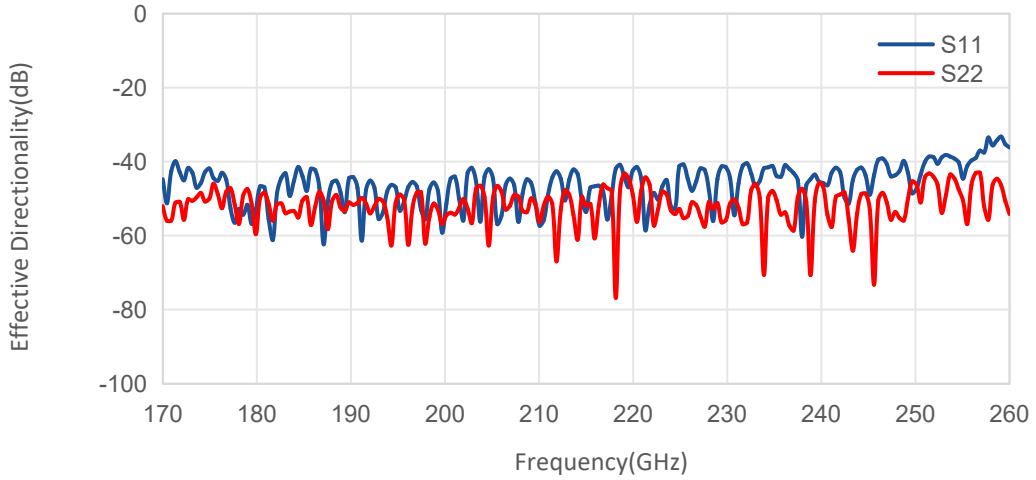
Stability@1h vs Frequency



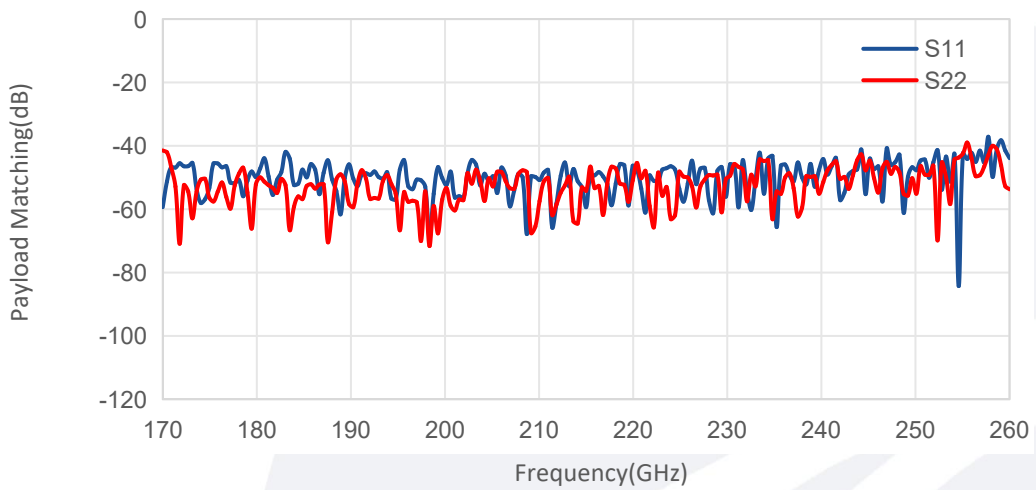
Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

典型曲线 Typical Performance Data:

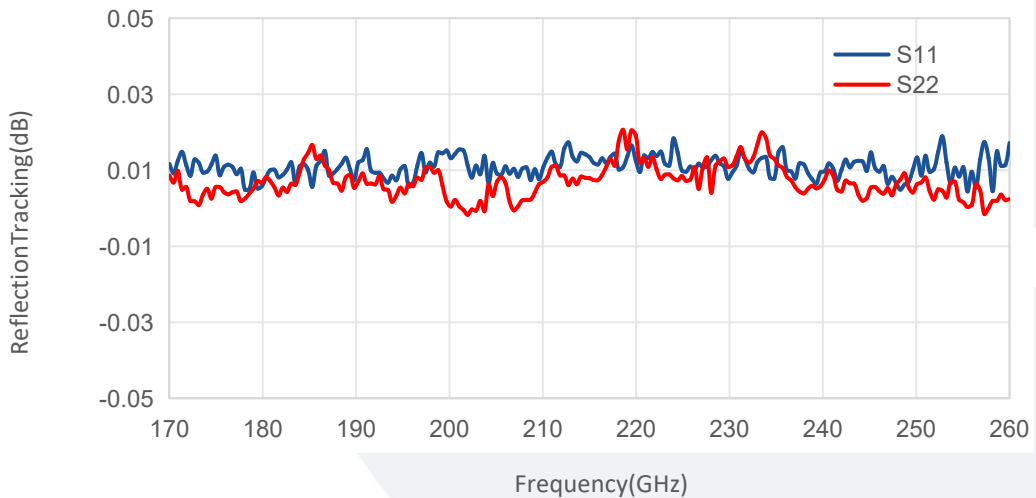
Effective Directionality vs Frequency



Payload Matching vs Frequency



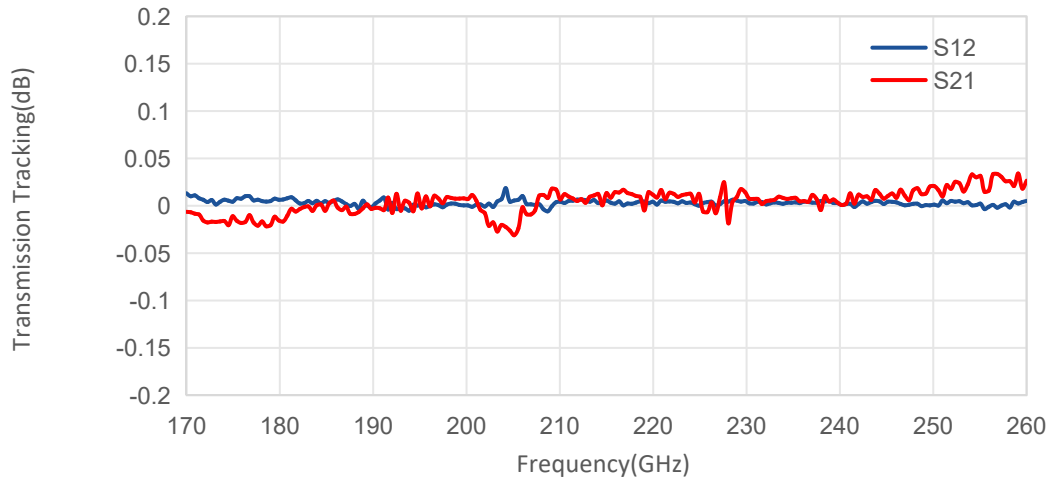
ReflectionTracking vs Frequency



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典型曲线 Typical Performance Data:

Transmission Tracking 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.