

E-Band VNA Frequency Extender

60-90GHz/WR-12

Model: TLTE-060090-13/TLRE-060090

TLTE-060090-13/TLRE-060090 frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 60-90 GHz.

Features:

- Frequency range: 60-90GHz
- Port Output Power: 13dBm Typ
- Dynamic Range @ 10Hz BW: 130dB 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	60		90	GHz
测试端口输出功率 Test Port Output Power		13		dBm
动态范围 Dynamic Range @10Hz BW	110	130		dB
射频输入频率 RF Input Frequency	10		15	GHz
射频输入功率 RF Input Power	3	5	7	dBm
RF倍频次数 RF Multiplication Factor	6			
本振输入频率 LO Input Frequency	10		15	GHz
本振输入功率 LO Input Power	3	5	7	dBm
LO倍频次数 LO Multiplication Factor	6			
接收端变频损耗 Conversion Loss of Receiver		10		dB
中频频率范围 IF Frequency Range	1		1000	MHz
幅度稳定度 Amplitude Stability @300Hz BW		±0.1		dB
相位稳定度 Phase Stability @300Hz BW		±2		°

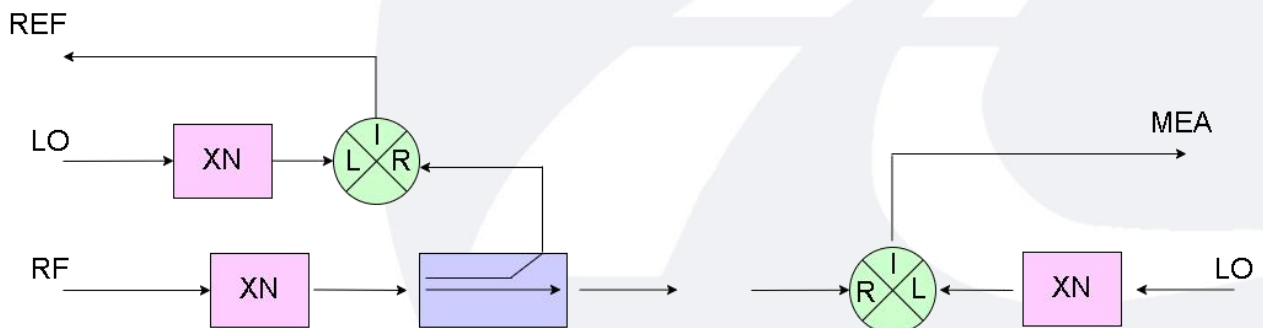
机械特性 Mechanical Specifications:

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-12/UG-387/U
供电 Power Supply Pin	FGG 0B 4 Core

绝对最大值 Absolute Maximum Ratings :

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

原理框图 Block Diagrams:



环境和物理特性 Envrionmental And Physical

描述 Description	参数 Parameter	单位 Units
操作温度 Operating Temerature	0 to +45	°C
存储温度 Storage Temerature	-55 to +125	°C
材质 Material	Aluminum	
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
TLTE-060090-13	E-band VNA Frequency Extender, 60-90GHz, Output Power: 13dBm typ, Dynamic Range: 130dB typ., Magnitude Stability @300Hz BW: ± 0.1 dB, Phase Stability @300Hz BW: $\pm 2^\circ$	Rev.1.1
TLRE-060090	E-band Receiver Module, 60-90GHz, Conversion Loss: 10 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.