

U-Band VNA Frequency Extender

40-60GHz/WR-19**Model: TLTE-040060-13/TLRE-040060**

TLTE-040060-13/TLRE-040060 frequency extenders are a dedicated Test & Measurement solution for extending the range of your Vector Network Analyzer (VNA) to 40-60 GHz.

Features:

- Frequency range: 40-60 GHz
- 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	40		60	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	4			
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	4			
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 Stability @ 300 Hz BW		±0.1		dB
相位稳定度 Phase Stability @ 300 Hz BW		±2		°

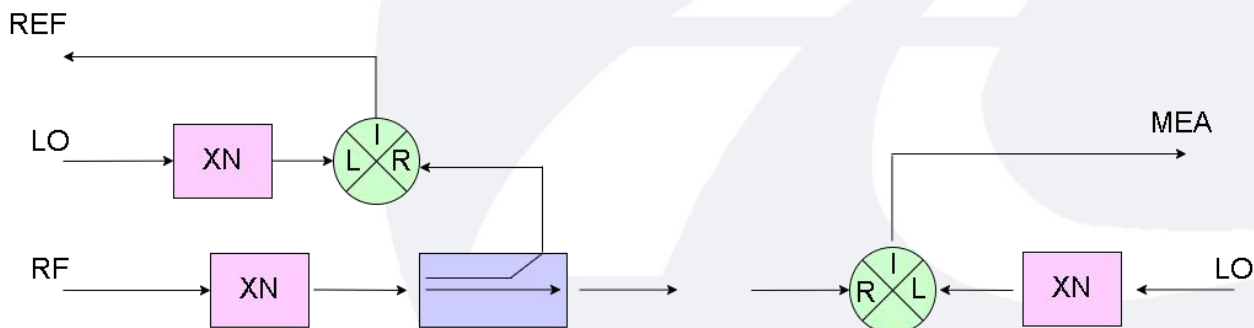
机械特性 Mechanical Specifications:

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-19/UG-383/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 Envriomental 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-040060-13	U-band VNA Frequency Extender, 40-60GHz, 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-040060	U-band Receiver Module, 40-60GHz, 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.