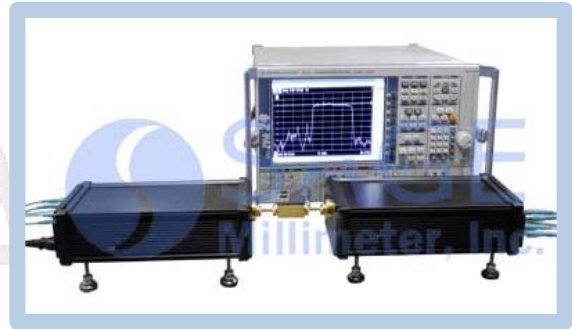




F Band VNA Frequency Extender

Description:

Model STO-08203-S1 is a F Band vector network analyzer (VNA) frequency extender designed to achieve full 2-port, S-parameter testing at 90 to 140 GHz. It is compatible with modern vector network analyzers such as the Rohde & Schwarz ZVA Series and the Keysight PNA-X Series. The frequency extenders can achieve a dynamic range of 90 dB and are great for testing passive and active devices. It takes a pair to complete the full S parameter test set.



Features:

- Full Band Coverage
- Dynamic Range of 90 dB

Applications:

- S-Parameter Characterization
- Test Lab Instrumentation

Electrical Specifications:

Parameter	Minimum	Typical	Maximum
RF Operating Frequency	90 GHz		140 GHz
Test Port Output Power		-5 dBm	
Dynamic Range @ 10 Hz Bandwidth	80 dB	90 dB	
Test Port Match		17 dB	
Directivity		35 dB	
RF Source Input Frequency	10.0 GHz		15.56 GHz
RF Source Input Power		+10 dBm	
LO Source Input Frequency	11.25 GHz		17.5 GHz
LO Source Input Power		+10 dBm	
IF Frequency Range	10 MHz		300 MHz
Magnitude Stability		0.3 dB	
Phase Stability		4°	
Bias Input		+12V/1,300mA	
Specification Temperature		+25°C	
Operating Temperature	+20°C		+30°C

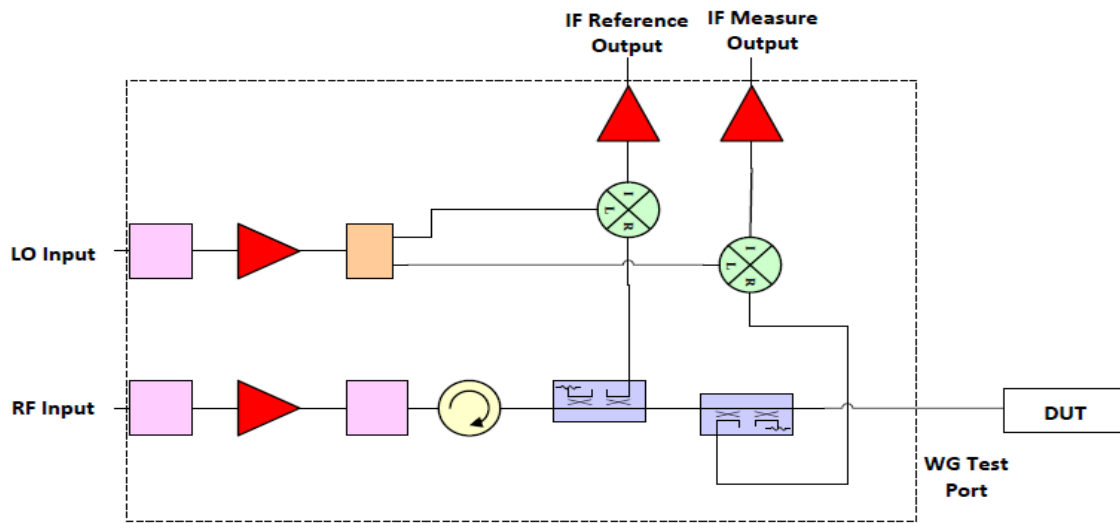
Mechanical Specifications:

Item	Specification
RF Test Port	WR-08 Waveguide with UG387/U-M Flange
RF and LO Source Input Ports	SMA (F)
IF Output Ports	SMA (F)
DC Port	2.5 mm DC Jack (AC-to-DC power converter included)
DC Bias Switch	On-Off Rocker Switch with Indicator Light
Finish	Black Anodized
Weight	8 lbs
Outline	TO-SF

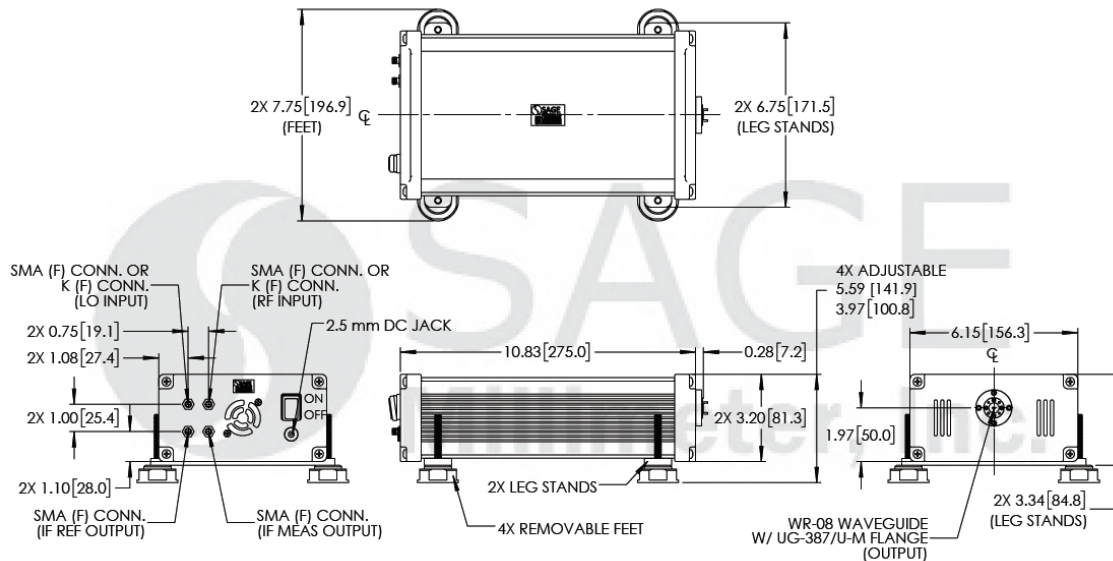


F Band VNA Frequency Extender

Simplified Block Diagram (Tx/Rx Module):



Mechanical Outline: (Unless otherwise specified, all dimensions are in inches [millimeters])



Note:

- Two identical units are required to complete the full S parameter test set.
- The VNA to be extended needs to have four port and dual source options.
- SAGE Millimeter, Inc. reserves the right to change the information presented without notice.

Caution:

- Exceeding absolute maximum ratings of the device will damage the device.
- Proper torque, 8.0 ± 0.15 inch-pounds (0.92 ± 0.05 Nm), should be applied. **SAGE Millimeter torque wrench, model SCH-08008-S1, is highly recommended.**
- Any foreign objects in the waveguide will cause performance degradation and possible device damage.

