

## Datasheet

### Description

The FEV-02 Series will expand your existing Vector Network Analyzer (VNA) capabilities so you can conduct industry leading millimeter wave S-parameters measurements in 325-500 GHz band. These frequency extension modules connect to your existing test ports, and leverage the inherent microwave network analyzer's performance and features to display full port S-parameters: Two measurement architectures are available: 1-path/2-port and fully reversing 2-port. Waveguide calibration kits are available as separate accessories.



### Features

- Full simultaneous 2-port or 4-port network analysis
- Excellent dynamic range
- Excellent stability
- Compact and robust design
- Convection cooled – no fans – hence no vibration.
- T/R and T heads available
- Electronic power control compatibility with Agilent PNA-X
- 25 dB integrated manual variable attenuator on Port 1 heads
- 2-Port controller available as standard
- 4-port controller available for balanced and multi-port measurements to special order

### Applications

- Test and measurement frequency range extension
- Balanced S-parameters
- Multi-port S-parameters
- Wafer probe measurement
- Antenna measurements
- Dielectric material characterization

### Accessories

- Calibration kits
- Cables
- Manuals
- Flight cases

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Specification	Unit	Min	Typ	Max
System Operating Frequency	GHz	325		500
Test Port Output Power (2)	dBm	-30	-20	
System Dynamic Range (3)	dB	70	90	
Raw Coupler Directivity	dB	25	30	
Trace Stability Magnitude (4)	dB		±0.8	
Trace Stability Phase (4)	degree		10	
Test Port Input 0.1dB Compression Point	dBm		0	
Manual Variable Attenuator	dB	0		25
RF Input Frequency	GHz	10.83		16.67
RF Input Power	dBm	+7		+10
LO Input Frequency	GHz	9.03		13.89
LO Input Power	dBm	+7		+10
IF Output Frequency	MHz	5		50
Test Port Damage Level	dBm	+5		
RF/LO Port Damage Level	dBm	+15		
Test Port Interface	-	WR-02 UG-387/UM, IEEE 1785-2a (Precision Style)		
RF/LO Connector	-	3.5 mm (F)		
IF Connector	-	SMA (F)		
DC Power Requirements	-	+6V at 1750 mA +10V at 200 mA		
Weight	kg		3.5	
Dimensions (L x W x H)	-	290 x 130 x 85		
Operating Temperatures	°C	0		30

- (1) Specifications are typical and subject to change without a notice.
- (2) For frequencies greater than 110 GHz traceable only to FTL calorimeter.
- (3) Measured with PNA-X 5242A at 10 Hz of IF bandwidth.
- (4) Measured at 1h after 2h warm up and calibration. Assuming ideal RF and LO cables.

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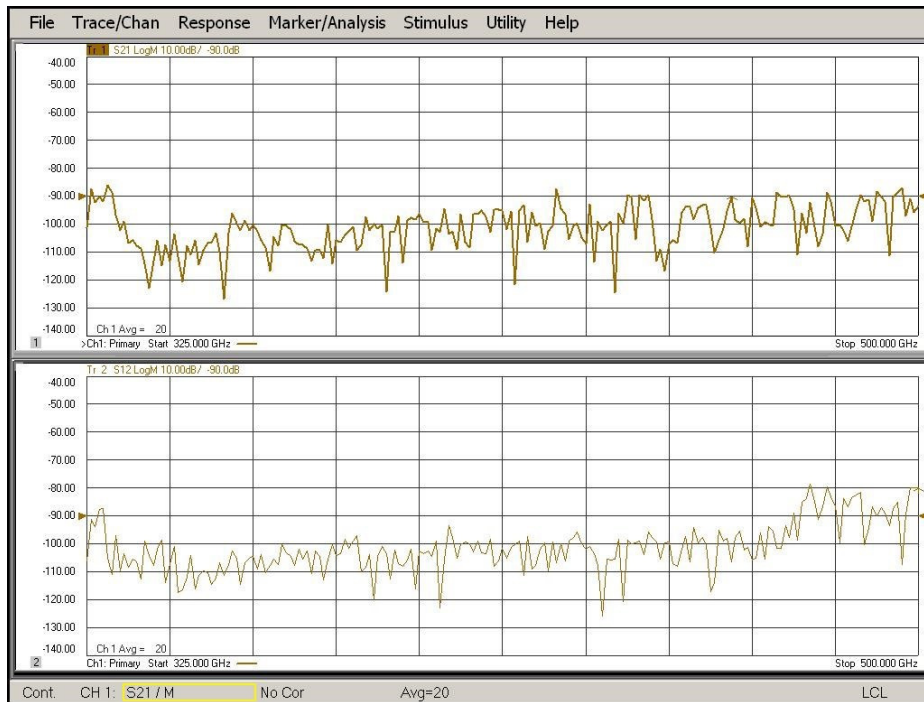
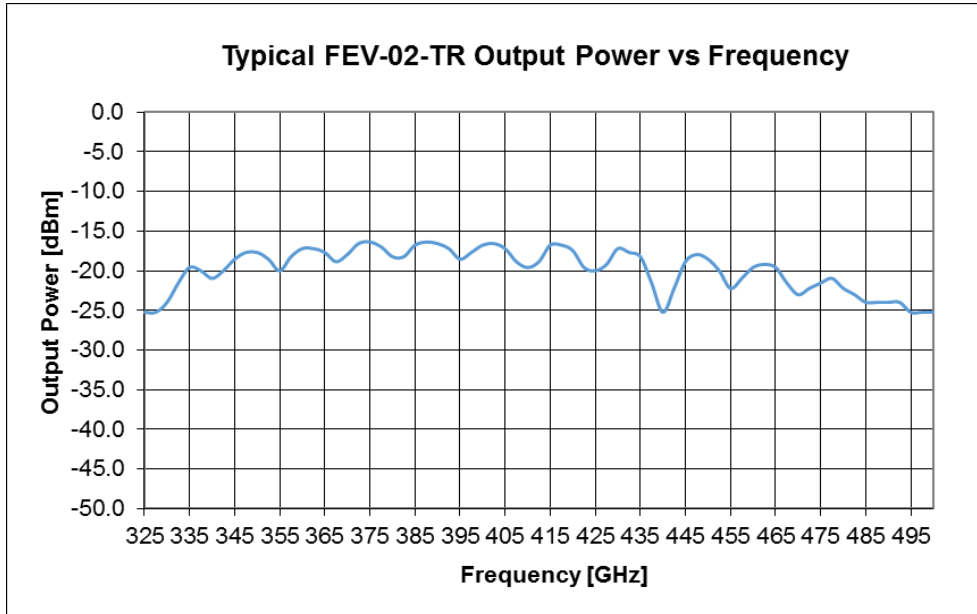


Figure 1. Typical FEV-02-TR system dynamic range.