



# Vector Network Analyser Frequency Extension Systems 40 - 500 GHz

**Farran's FEV frequency extenders are a dedicated Test & Measurement solution for extending the range of Vector Network Analysers (VNA).**

**The system comprises of a pair of transmitter-receiver modules that enable VNA to perform S-parameters measurements up to 500 GHz.**

This compact and lightweight system allows you to use your existing baseband vector network analyzer and extend its operational range to the frequency of interest. Farran's Vector Network Analyser Frequency Extension Systems are a cost effective way to expand your test capability into the millimeter wave range.

**With Farran's FEV VNA measurement extension solution you can:**

- Extend the range of your existing equipment in the most cost effective way.
- Achieve full waveguide band coverage with sweep and step frequency capability.
- Use seamlessly in bench-top DUT or with MPI/Cascade on-wafer probe station measurements.
- Interface with compatible Keysight, R&S, Copper Mountain Technologies and Anritsu vector network analyzers.
- Achieve unparallel dynamic range, stability and accuracy of the coherent phase and amplitude measurements.
- Obtain 40 - 500 GHz frequency range coverage.

As a manager of the R&D group, we needed to pivot to mm-wave frequency for our new development plan. After an extensive search, we found Farran's FEV range of extenders to be the best solution to our needs. We had direct communications with all the relevant Farran personnel from the outset and were able to get real time feedback and support for the many questions we had prior to purchase. ”

**R&D Manager, UK Automated Test Equipment Manufacturer**

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## MM-WAVE S-PARAMETERS MEASUREMENTS

- Full 2-port S-parameters millimeter wave measurements up to 500 GHz
- Error-corrected measurements – full 2-port TRL/SOLT calibration



## MEASUREMENT APPLICATIONS

- Bench-top DUT S-parameters
- On-wafer S-parameters
- 5G and WiGig
- Automotive radar and sensor testing.
- Material characterisation
- 70 / 80 / 90 GHz backhaul radio



## COMPATIBILITY

- Keysight PNA/PNA-X: 26.5, 43.5, 50 and 67 GHz
- Rohde & Schwarz ZVA: 24, 40, 50, 67 GHz
- Anritsu VectorStar MS / ME78xx
- Copper Mountain Technologies: C4220 & C4420





## Product Features and Benefits

**Farraan's FEV Vector Network Analyser Frequency Extension Systems enable S-parameters measurements of packaged and on-wafer devices, and materials up to 500 GHz. The system leverages on seamless compatibility with vector network analysers of all major equipment suppliers, and can be configured with a 2- as well as 4-port VNAs.**

The FEV extension modules fulfil requirements for a bench-top, on-wafer as well as Over-the-Air measurements in a production as well as R&D and scientific settings. Very high amplitude and phase stability, as well as an exceptional dynamic range, ensure a very high degree of measurement fidelity, and allow for a high measurement speed and a reduced test time for each DUT without a need for a frequent system calibration.

Farraan's FEV Vector Network Analyser Frequency Extension Systems offer unparalleled value when upgrading an existing or configuring new equipment for millimeter wave S-parameters measurements.



### SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance
- Application Support
- Hardware Support

For more information on any of our products or services please visit our website: [www.farraan.com](http://www.farraan.com)



### TECHNICAL SUPPORT

- Technical support provided directly by our knowledgeable and friendly engineers.
- Support for pre- and post-purchase: system configuration, installation and troubleshooting.



### GLOBAL REP NETWORK

- Support queries answered by our responsive Global Rep Network in over 25 countries worldwide.



### WARRANTY

- Standard 3 year warranty.
- Up to 5 year warranty optional.

### System Requirements

- 4-port Keysight, R&S, Anritsu or Copper Mountain Technologies VNA with a baseband frequency coverage up to 20 GHz.
- Optional compatibility with modern and legacy 2-port VNAs.
- Calibration kits provided.
- Cables and power supplies provided.
- Custom solutions available.
- For a full check of compatibility with your equipment contact Farraan Support on: [www.farraan.com/support](http://www.farraan.com/support)

