



# Signal Generator Frequency Extension Systems 40 - 500 GHz

**Farran's FEV frequency extenders are a dedicated Test & Measurement solution for extending the range of Signal Generators (SG).**

**The FES modules are designed to interface with your existing microwave signal generator (operating up to 20 GHz) and multiply its output frequency range up to 500 GHz.**

These compact and lightweight modules allow you to use your existing microwave signal generator and extend its operational range to the frequency of interest. Farran's Signal Generator Frequency Extension Systems are a cost effective way to expand your test capability into the millimeter wave range.

**With Farran's FES signal generator 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 with wide range of signal generators including Keysight, Rohde & Schwarz and Anritsu.
- Achieve unparalleled output power, phase and amplitude stability and accuracy of the output millimeter wave signal.
- Obtain 40 – 500 GHz frequency range coverage.

“A simple, cost-effective fit was necessary to upgrade to mmwave frequencies for our range of existing Production Test Area Signal Generators. Farran's FES solution was the perfect fit, with excellent support. Now that our upgrade is completed, we could not be happier with the FES extenders. They do exactly as we expected & required.”

**Head of Global Procurement, US RF Manufacturer**



## ADDITIONAL FEATURES

- Stable and lightweight
- Support FM/PM and pulse modulation
- Optional manual variable attenuator



## MEASUREMENT APPLICATIONS

- RF/LO sources for mixer, up- and down-converter measurements
- 5G and WiGig
- Automotive radar and sensor testing
- Material characterisation
- Frequency sources for emerging mm-wave applications



## COMPATIBILITY

- Keysight PSG, MXG, EXG, UXG: 20, 31.8, 40, 50 and 67 GHz
- Keysight PXie M9383A: 20, 31.8, 44 GHz
- Rohde & Schwarz SMA100B & SMB100A: 20, 31.8, 40, 50, 67 GHz
- Anritsu VectorStar MG3690C
- Other 20 GHz signal generators





## Product Features and Benefits

Farran's FES Signal Generator Frequency Extension Systems enable generation of millimeter-wave signals up to 500 GHz. The system leverages on seamless compatibility with microwave signal generators from all major equipment suppliers and can be configured with any instrument operating up to 20 GHz.

The FES extension modules fulfil the requirements for a high power and stable millimeter wave signal source in a production, as well as scientific and R&D settings. Very high amplitude and phase stability, as well as an exceptionally low noise, ensure a very high degree of measurement fidelity, and allow for reducing test time of each DUT without a need for a frequent system calibration.

Farran's FES Signal Generator Frequency Extension Systems offer unparalleled value when upgrading an existing or configuring new equipment for millimeter wave signal generation.



### 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.farran.com](http://www.farran.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

- Keysight, R&S, Anritsu or other signal generator with a baseband frequency coverage up to 20 GHz.
- Single RF cable interface.
- Power supply provided.
- Custom solutions available.
- For a full check of compatibility with your equipment contact Farran Support on: [www.farran.com/support](http://www.farran.com/support)

