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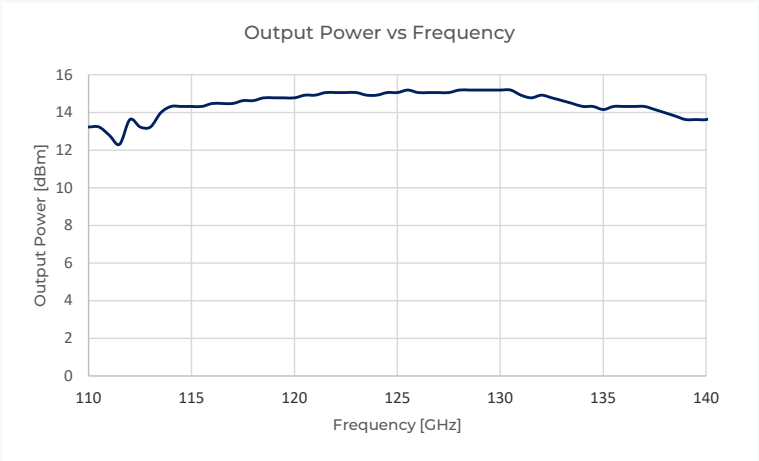
# WR-06 Frequency Extension Source Module 110-140 GHz: **FES-06-0002**

**Farran's FES-06 module will expand your existing microwave Signal Generator (SG) capabilities to conduct measurement in WR-06 band (110-140 GHz).**

These frequency extension modules easily connect to the output of your signal generator so you have a high performance source for your DUT characteristation activities. Characterise your DUT with the confidence that the superior performance in terms of output power, spurious and harmonics will provide product accurate results.

**Key Facts:**

- Solid state multipliers.
- High output power: +14 dBm typ.
- High harmonic suppression.
- Separate AC/DC power supply




## ADDITIONAL FEATURES

- Stable, compact and lightweight
- Supports FM/PM and pulse modulations
- Compatible with standard signal 20 GHz generators
- Optional manual variable attenuator

## APPLICATIONS

- Test equipment frequency extension
- Frequency sources for emerging mm-wave applications
- RF/LO sources for mixer and up- and down-converter measurements

## ACCESSORIES

- AC/DC laptop style power supply with 2m cable
- User Manuals
- Flight Case

"We needed a simple way to generate mm-wave signals for testing mixers and down-converters. We have multiple signal generators and Farran's FES product family was the best way to extend their range. They can work with even basic 20 GHz signal generator providing a high power and very stable output signals with excellent spectral purity. The modules are compact, lightweight, and very easy to incorporate in our test and measurement setups."

**Test Engineer, Manufacturer of RF & Microwave Components**

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# Product Specification

| System Specification | Unit | Min | Typ | Max |
|---|---|---|---|---|
| Operating Frequency | GHz | 110 | - | 150 |
| Test Port Output Power (n. trc. meas.) | dBm | - | 14 | - |
| RF Input Frequency | GHz | 6.88 | - | 9.38 |
| RF Multiplier Number (nom.) | - | - | 16 | - |
| RF Input Power | dBm | +5 | - | +10 |
| RF Port Damage Level (nom.) | dBm | +15 | - | - |
| Optional Variable Attenuator | dB | 0 | - | 25 |
| RF Test Port (nom.) | - | WR-06, IEEE 1785.2a Precision Style (UG-387/UM compatible) | | |
| RF Test Port VSWR (typ.) | - | - | <1.5:1 | - |
| RF Input VSWR (typ.) | - | - | <1.5:1 | - |
| RF Input Port (nom.) | - | SMA(F) | | |
| DC Power Requirements (typ.) | - | +12V @ 1A | | |
| Dimensions (approx.) | mm | 170 x 105 x 60 | | |
| Weight (approx.) | kg | 1.25 | | |
| Operating Temperatures (nom.) | ˚C | 0 | - | 30 |

## 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

## TECHNICAL SUPPORT

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

## PRODUCT INSIGHTS

- For more product insights register at www.farran.com/customer
- Additional information: test data, CAD drawings and 3D models available.

## WARRANTY

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

## Specification Definitions

**Nominal value (nom.)** – ensured by design, not tested. **Measured value (min, max)** – expected and warranted product performance obtained from the actual measurements of product sample. **Non-traceable measured value (n. trc. meas.)** – expected product performance obtained from the actual measurements of a product sample by means of using Farran's own equipment and methods. Traceable only to Farran laboratory equipment. **Typical data (typ.)** – value that represents the product specification met over 90% of bandwidth or a mean value. **Specifications without limits** – represent the warranted product performance; with values of no or a negligible deviation from the given value and as such have a secondary impact on the product performance.