



# WR-15 Frequency Block Downconverter 50-75 GHz: FBC-15-FB-0002

Farran offers the FBC series of down converters for use as frequency extenders for noise figure measurement test systems.

The FBC-FB-XX is a fullband system can be built upon an Keysight N8975A Noise Figure Analyzer (NFA) or X-Series Signal Analyzers with Option N9069A. The system allows the user to extend the frequency range of the NFA to allow for accurate noise figure measurements to be performed on a device covering V, W, F, D and G bands (50-220 GHz), when used with an Keysight E8247C signal generator (or equivalent). The FBC-15-FB covers the full V Band 50 – 75 GHz.

## Key Facts:

- Full band noise figure measurements
- Compatible with Keysight NFA and Keysight PXA with noise figure personality
- Low noise figure for high system accuracy
- Convenient packing to match the VNA frequency extension



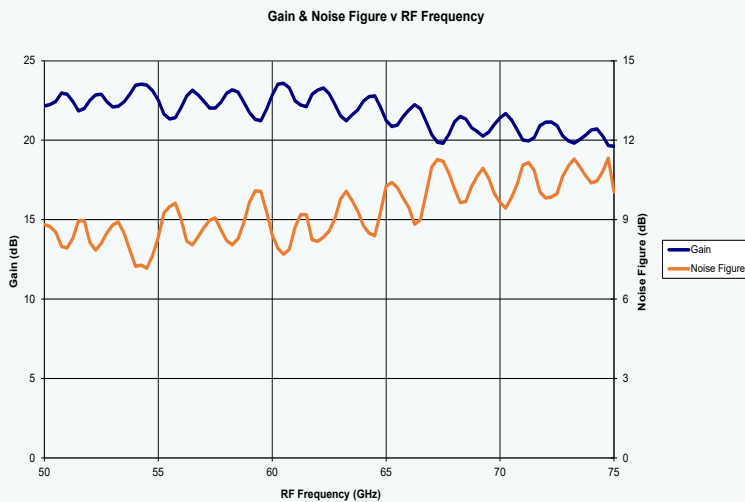
## APPLICATIONS

- Communications
- OEM test instrumentation
- EW and ECM systems
- Radar front ends
- Frequency extenders for noise figure measurement systems



## ACCESSORIES

- User Manual



“We used a Farran FBC & WGNS combination with our existing N8975 Noise Figure System and it operated seamlessly. We are very happy with the performance and the measurements results we are now getting.”

**Telecommunications Engineer Team Lead, US Wireless  
Communications Corporation**



## Product Specification

| System Specification       | Unit | Min            | Typ    | Max   |
|----------------------------|------|----------------|--------|-------|
| System Operating Frequency | GHz  | 50             | -      | 75    |
| System Conversion Gain     | dB   | +10            | -      | -     |
| System Noise Figure        | dB   | -              | 10     | 13    |
| IF Output Frequency        | MHz  | -              | 11.139 | -     |
| LO Input Frequency         | GHz  | 12.5           | -      | 18.75 |
| LO Input Power             | dBm  | +5             | -      | +10   |
| Test Port Damage Level     | dBm  | +5             | -      | -     |
| Test Port Interface        | -    | WR-15 UG-383/U |        |       |
| LO Connector               | -    | SMA 3.5 mm (F) |        |       |
| IF connector               | -    | SMA 3.5 mm (F) |        |       |
| Power Requirements         | -    | 240/110 V AC   |        |       |
| Weight (approx.)           | kg   | 3.5            |        |       |
| Dimensions (L x W x H)     | mm   | 290 x 120 x 90 |        |       |



### 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.



### PRODUCT INSIGHTS

- For more product insights register at [www.farran.com/customer](http://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.

