



## WR-03 Harmonic Mixer 220-325 GHz: WHMB-03-0001

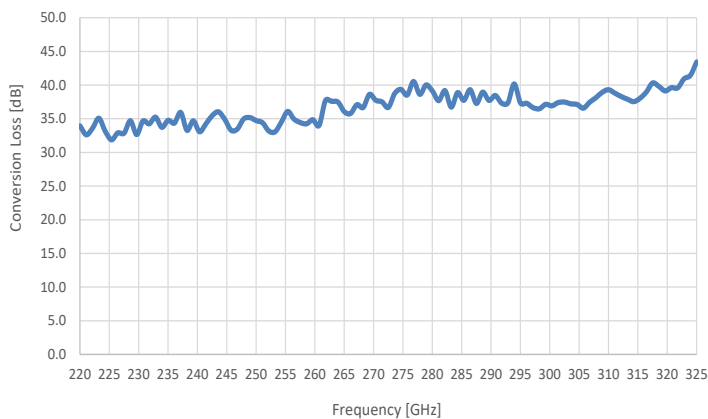
Farran's WHMB-03-0001 is a high performance harmonic mixer series offering low conversion loss with no bias required. Suitable for use with Keysight and Rohde & Schwarz spectrum analysers for frequency extension applications.



### Key Facts:

- Low conversion loss
- Flat frequency response
- Frequency coverage up to 500 GHz
- Unbiased anti-parallel diode pair
- Compact and lightweight

Typical Conversion Loss vs Frequency



"We have made many Farran purchases, including amplifiers, mixers and multipliers. They are all high-performance devices and always meet our expectations. Farran supplied each component with comprehensive set of test results and a manual, which is not necessarily a given in this industry."

**Microwave Circuit Designer & Engineer, Multinational Electronic Test Equipment Manufacturer.**



### APPLICATIONS

- Spectrum analysis
- mm-Wave instrumentation
- Signal processing
- Phased locked loops



### ACCESSORIES

- User Manual
- Diplexer (optional)
- LO/IF cable (optional)



## Product Specification

Specification	Unit	Min	Typ	Max
Frequency Range	GHz	220	-	325
IF Frequency Range	MHz	DC	741	2000
LO Harmonic Number	-	-	24	-
LO Frequency Range	GHz	9.16	-	13.54
Mixer Conversion Loss SSB (n. trc. meas.)	dB	-	45	-
LO Input Power	dBm	+12	+13.5	+15
Test Port VSWR (typ.)	-	-	3.6:1	-
Test Port Flange (nom.)	-	WR-03, UG-387/UM		
LO/IF Connector (nom.)	-	2.92mm - F		
CW RF Input Level (typ.)	dBm	-	-	-10
CW RF Damage Level (nom.)	dBm	0	-	-
Weight (typ.)	g	-	35	-
Dimensions (approx.)	mm	16 x 20 x 30		
Operating Temperatures (nom.)	deg C	0	-	30
Integrated LO/IF Diplexer	-	No		
Bias	-	Not required		



### 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 1 year warranty.

### 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.

