



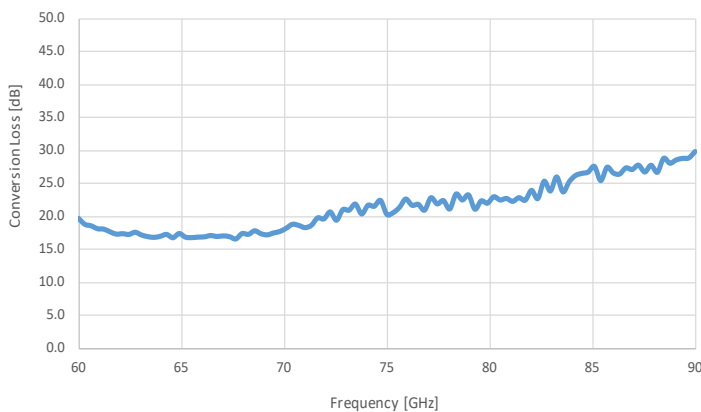
WR-12 Harmonic Mixer 60-90 GHz: WHMB-12-0003

Farran's WHMB-12-0003 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:

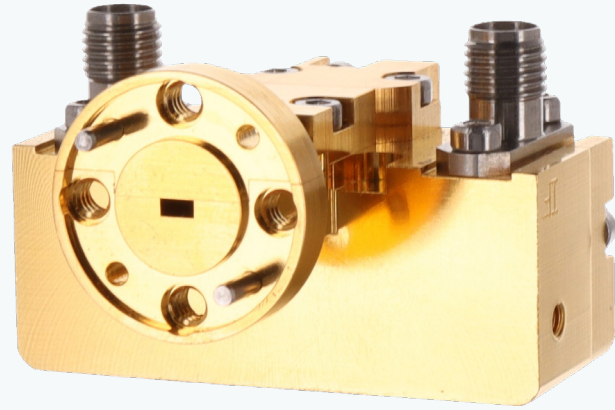
- Low conversion loss
- Flat frequency response
- Product Family frequency coverage up to 500 GHz
- Unbiased anti-parallel diode pair

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	60	-	90
IF Frequency Range	MHz	DC	741	2000
LO Harmonic Number	-	-	6	-
LO Frequency Range	GHz	10	-	15
Mixer Conversion Loss SSB (n. trc. meas.)	dB	-	32	-
LO Input Power	dBm	+13	+15	+17
Test Port VSWR (typ.)	-	-	3.6:1	-
Test Port Flange (nom.)	-	WR-12, UG-387/UM		
LO/IF Connector (nom.)	-	SMA-F		
CW RF Input Level (typ.)	dBm	-	-	-10
CW RF Damage Level (nom.)	dBm	7	-	-
Weight (typ.)	g	-	45	-
Dimensions (approx.)	mm	37 x 41 x 26		
Operating Temperatures (nom.)	deg C	0	-	30
Integrated LO/IF Diplexer	-	Yes		
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



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 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.

