

Waveguide Converter Mixer WR-15 From 50 GHz to 75 GHz, IF from DC to 25 GHz And LO Power of +13 dBm, UG-385/U Flange, V Band

The FMWGMX1004 is a WR-15 Waveguide Down Converter Mixer, operating across the V Band from 50 GHz to 75 GHz. The IF frequency band is DC to 25 GHz with a nominal LO drive level of +13 dB. Typical performance for the 50 Ohm double balanced mixer design includes 8 dB conversion loss and 30 dB isolation, with a maximum RF input power level of +17 dBm. The rugged and small size gold plated aluminum package supports a UG-385/U waveguide flange pattern at RF and LO ports, and an SMA female connector at the IF port. The mixer design is RoHS compliant and operates across a temperature range from -10°C to +45°C.



Electrical Specifications (@ +25°C)

Description	Min	Typ	Max	Units
Frequency Range	50		75	GHz
LO Frequency Range	50		75	GHz
IF Frequency Range	DC		25	GHz
RF to LO Isolation		30		dB
Conversion Loss		8		dB
LO Port Power		13		dBm

Electrical Specification Notes:

- Do not put any foreign objects inside the waveguide. Warranty will be voided
- Open and short-circuit loads are not recommended at the mixer output
- Ensure proper 50 Ohm load before applying RF

Mechanical Specifications

Size	
Length	1 in [25.4 mm]
Width/Diameter	1 in [25.4 mm]
Height	1 in [25.4 mm]
Weight	0.22 lbs [99.79 g]
Body Material and Plating	Aluminum, Gold

Configuration

Description	RF Port	LO Port	IF Port
Type	WR-15	WR-15	SMA Female
Waveguide Flange	UG-385/U	UG-385/U	

Environmental Specifications

Temperature	
Operating Range	-10 to +45 deg C
Storage Range	-40 to +100 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Features:

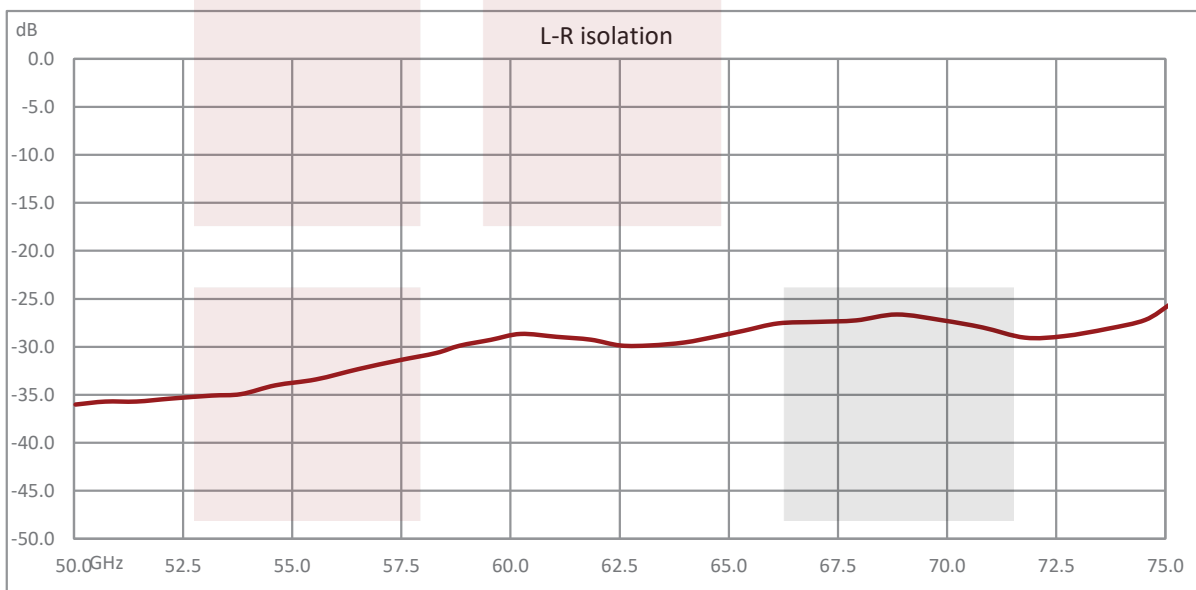
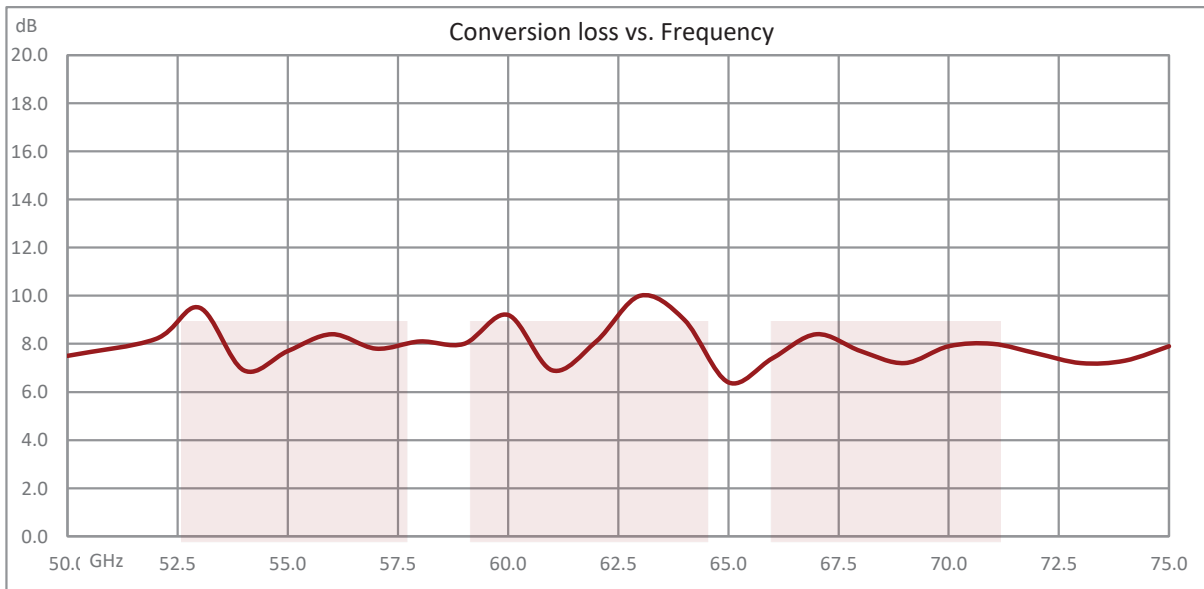
- WR-15 Waveguide Downconverter Mixer
- V Band
- RF/LO Frequency: 50 GHz to 75 GHz
- IF Frequency: DC to 25 GHz
- V Band
- LO Drive: +13 dBm
- Conversion Loss: 8 dB typ
- Isolation: 30 dB typ
- RF Input Power: +17 dBm max
- 50 Ohm Double Balanced Design
- RF/LO Port Waveguide Flange UG-385/U
- IF Port: SMA Female
- Operational Temperature Range -10°C to +45°C
- Rugged and Compact Gold Plated Aluminum Package Design
- RoHS Compliant

Applications:

- Test & Measurement
- Military & Commercial Communications
- Electronic Warfare
- ELINT
- Research & Development

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Typical Performance Data



Waveguide Converter Mixer WR-15 From 50 GHz to 75 GHz, IF from DC to 25 GHz And LO Power of +13 dBm, UG-385/U Flange, V Band from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Waveguide Converter Mixer WR-15 From 50 GHz to 75 GHz, IF from DC to 25 GHz And LO Power of +13 dBm, UG-385/U Flange, V Band FMWGMX1004](#)

URL: <https://www.fairviewmicrowave.com/wr-15-waveguide-mixer-50-75-ghz-ug-385-u-fmwgmx1004-p.aspx>

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