

Waveguide Converter Mixer WR-28 from 26.5 GHz to 40 GHz, IF from DC to 13.5 GHz and LO Power of +13 dBm, UG-599/U Flange, Ka Band

The FMWGMX1001 is a WR-28 Waveguide Down Converter Mixer, operating across the Ka Band from 26.5 GHz to 40 GHz. The IF frequency band is DC to 13.5 GHz with a nominal LO drive level of +13 dB. Typical performance for the 50 Ohm double balanced mixer design includes 10 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-599/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 | 26.5 | | 40 | GHz |
| LO Frequency Range | 26.5 | | 40 | GHz |
| IF Frequency Range | DC | | 13.5 | GHz |
| RF to LO Isolation | | 30 | | dB |
| Conversion Loss | | 10 | | 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 | 1.5 in [38.1 mm] |
| Width/Diameter | 1.5 in [38.1 mm] |
| Height | 1.3 in [33.02 mm] |
| Weight | 0.22 lbs [99.79 g] |
| Body Material and Plating | Aluminum, Gold |

Configuration

| Description | RF Port | LO Port | IF Port |
|------------------|----------|----------|------------|
| Type | WR-28 | WR-28 | SMA Female |
| Waveguide Flange | UG-599/U | UG-599/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:

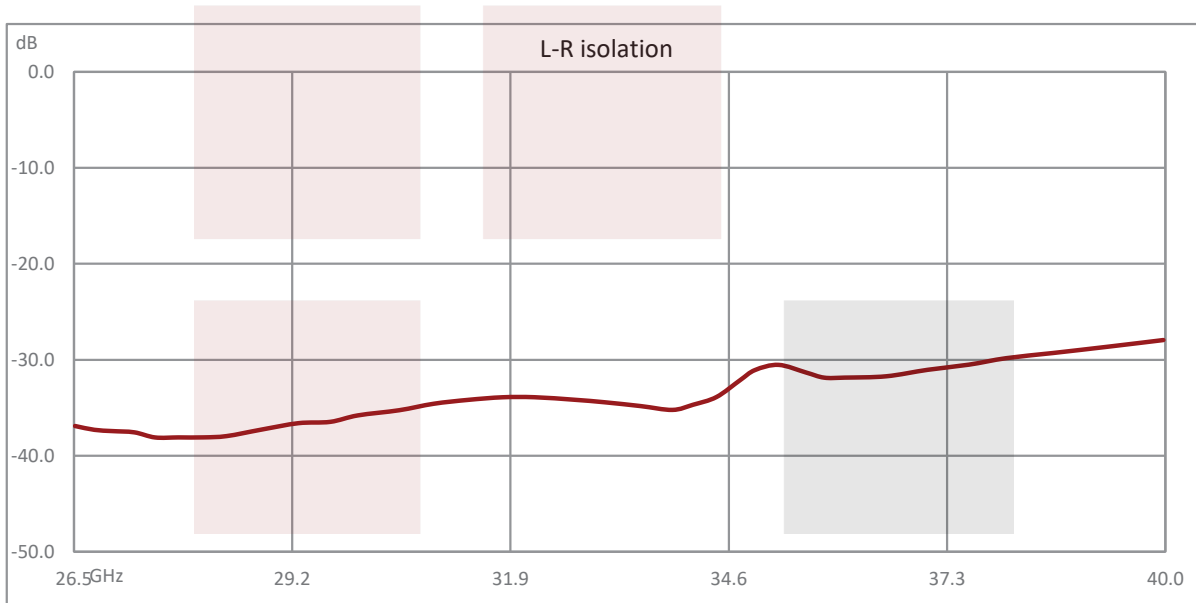
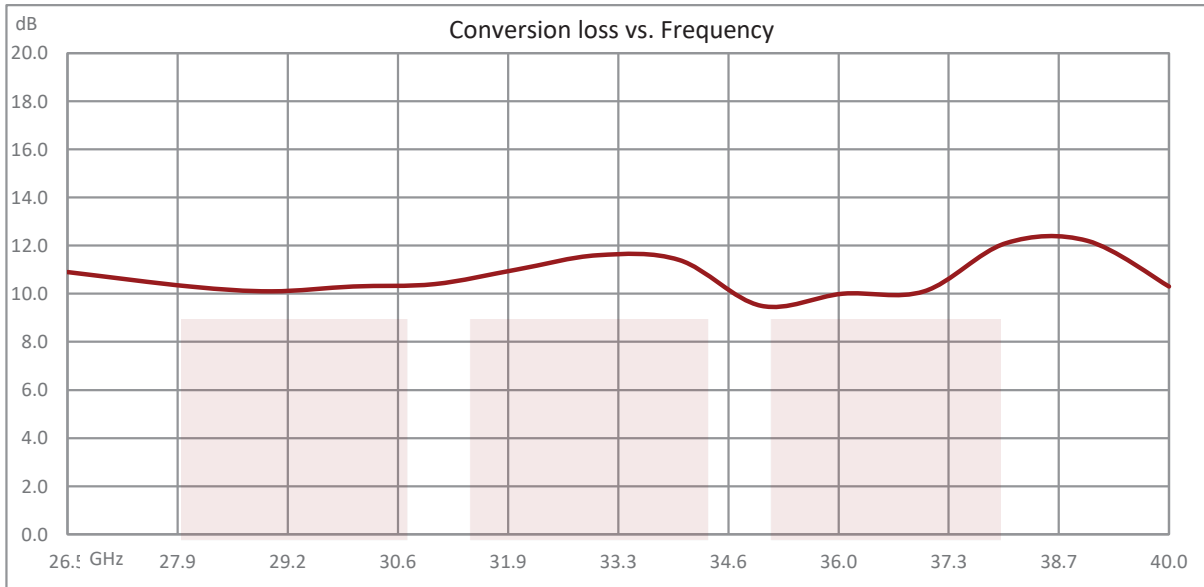
- WR-28 Waveguide Downconverter Mixer
- Band
- RF/LO Frequency: 26.5 GHz to 40 GHz
- IF Frequency: DC to 13.5 GHz
- Ka Band
- LO Drive: +13 dBm
- Conversion Loss: 10 dB typ
- Isolation: 30 dB typ
- RF Input Power: +17 dBm max
- 50 Ohm Double Balanced Design
- RF/LO Port Waveguide Flange UG-599/U
- IF 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-28 from 26.5 GHz to 40 GHz, IF from DC to 13.5 GHz and LO Power of +13 dBm, UG-599/U Flange, Ka 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-28 from 26.5 GHz to 40 GHz, IF from DC to 13.5 GHz and LO Power of +13 dBm, UG-599/U Flange, Ka Band FMWGMX1001](#)

URL: <https://www.fairviewmicrowave.com/wr-28-waveguide-mixer-26.5-40-ghz-ug-599-u-fmwgmx1001-p.aspx>

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