

WR-12 Waveguide Mixer Up Converter From 60 GHz to 90 GHz, With an IF Range From DC to 18 GHz And LO Power of +13 dBm, UG-387/U Flange

The FMMU1001 is a full waveguide band up converter mixer with an LO and RF frequency range of 60 to 90 GHz (E Band). The IF frequency range is DC to 18 GHz with a nominal LO drive level of +13 dBm. The double balanced circuit design utilizes high performance GaAs Schottky beam lead diodes. Conversion loss is 8.5 dB typical and flat across the entire frequency band. The gold plated compact package design uses integrated WR-12 with UG-387/U-MOD waveguide flange interfaces for the RF and LO ports and a female SMA connector for the IF port.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	60		90	GHz
LO Frequency Range	60		90	GHz
IF Frequency Range	DC		18	GHz
Conversion Loss		8.5		dB
LO Port Power		13	15	dBm

Mechanical Specifications

Size

Length	1.4 in [35.56 mm]
Width/Diameter	0.75 in [19.05 mm]
Height	0.75 in [19.05 mm]
Weight	0.0625 lbs [28.35 g]

Configuration

Design	Mixer Up Converter
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Description	RF Port	LO Port	IF Port
Type	WR-12 UG-387/U	WR-12 UG-387/U	SMA Female

Environmental Specifications

Temperature

Operating Range	0 to +50 deg C
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Compliance Certifications (visit www.FairviewMicrowave.com for current document)

Plotted and Other Data

Notes:



Features:

- E Band (60 to 90 GHz) full waveguide up converter
- Broad IF Frequency Range: DC to 18 GHz
- LO Drive level: +13 dBm nominal
- RF & LO Ports: WR-12 with UG-387/U-MOD Flange
- Double Balanced design
- Low Capacitance GaAs Schottky Beam Lead diodes
- Gold Plated Compact Package Design
- Operating Temperature: 0°C to +50°C

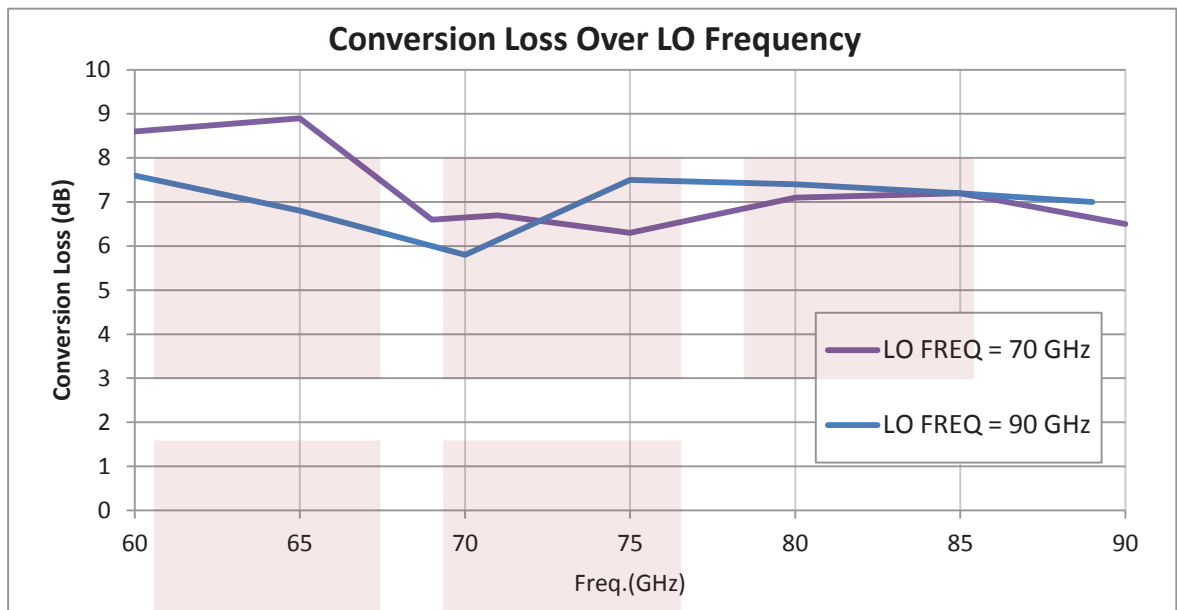
Applications:

- Transmitter Subsystems
- Military Communications
- Commercial Communications
- Instruments and Test Equipment

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Typical Performance Data

erGraph

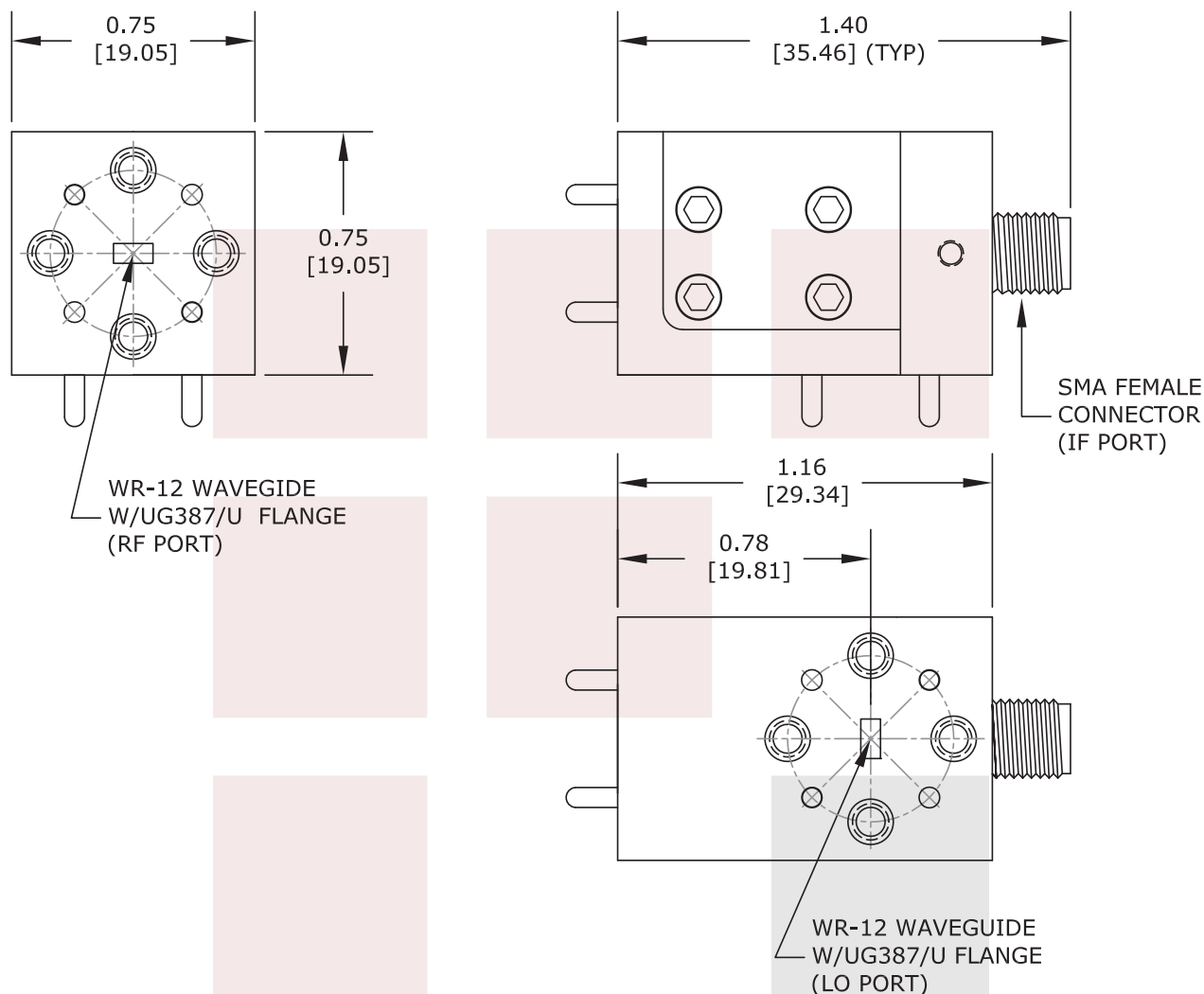


WR-12 Waveguide Mixer Up Converter From 60 GHz to 90 GHz, With an IF Range From DC to 18 GHz And LO Power of +13 dBm, UG-387/U Flange from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-12 Waveguide Mixer Up Converter From 60 GHz to 90 GHz, With an IF Range From DC to 18 GHz And LO Power of +13 dBm, UG-387/U Flange FMMU1001](http://www.fairviewmicrowave.com/wr-12-waveguide-mixer-up-converter-60-90-ghz-ug-387-u-fmmu1001-p.aspx)

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UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN: inches
TOLERANCES ARE: [mm]
.XX ± .01 [±.25]
.XX ±.001 [±.025]

* THESE DIMENSIONS AND TOLERANCES
SUPERSEDE NOTE #1 ON TITLE BLOCK.

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TITLE WR-12 Waveguide Mixer Up Converter From 60 GHz to 90 GHz, With an IF Range From DC to 18 GHz And LO Power of +13 dBm, UG-387/U Flange		DWG NO FMMU1001		CAGE CODE 3FKR5	
CAD FILE	072015	SHEET	SCALE	N/A	SIZE A 2233