

WR-12 Waveguide Mixer Down 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 FMMD1001 is a full waveguide band down 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 Down Converter

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



Compliance Certifications (visit www.FairviewMicrowave.com for current document)

Plotted and Other Data

Notes:

Features:

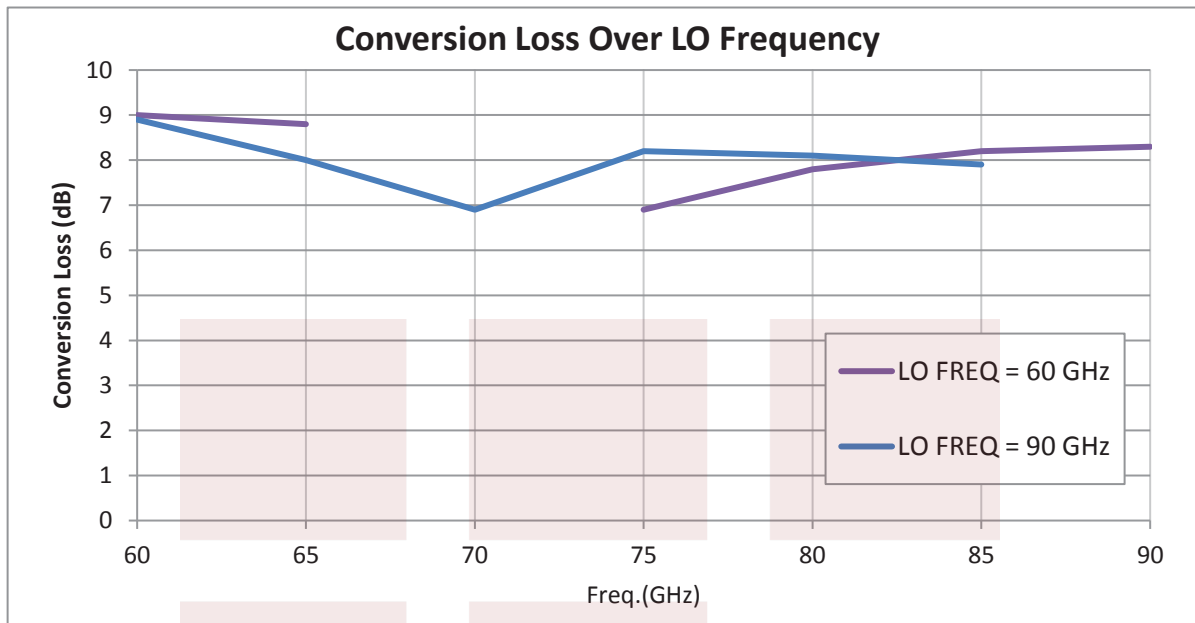
- E Band (60 to 90 GHz) full waveguide Down converter
- Broad IF Frequency Range: DC to 18 GHz
- LO Drive level: +13 dBm nominal
- RF & LO Ports: WR-12 with UG-387/U-MOD Flange
- Double Balanced design
- Low Capacitance GaAs Schottky Beam Lead diodes
- Gold Plated Compact Package Design
- Operating Temperature: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

Applications:

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

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Typical Performance Data

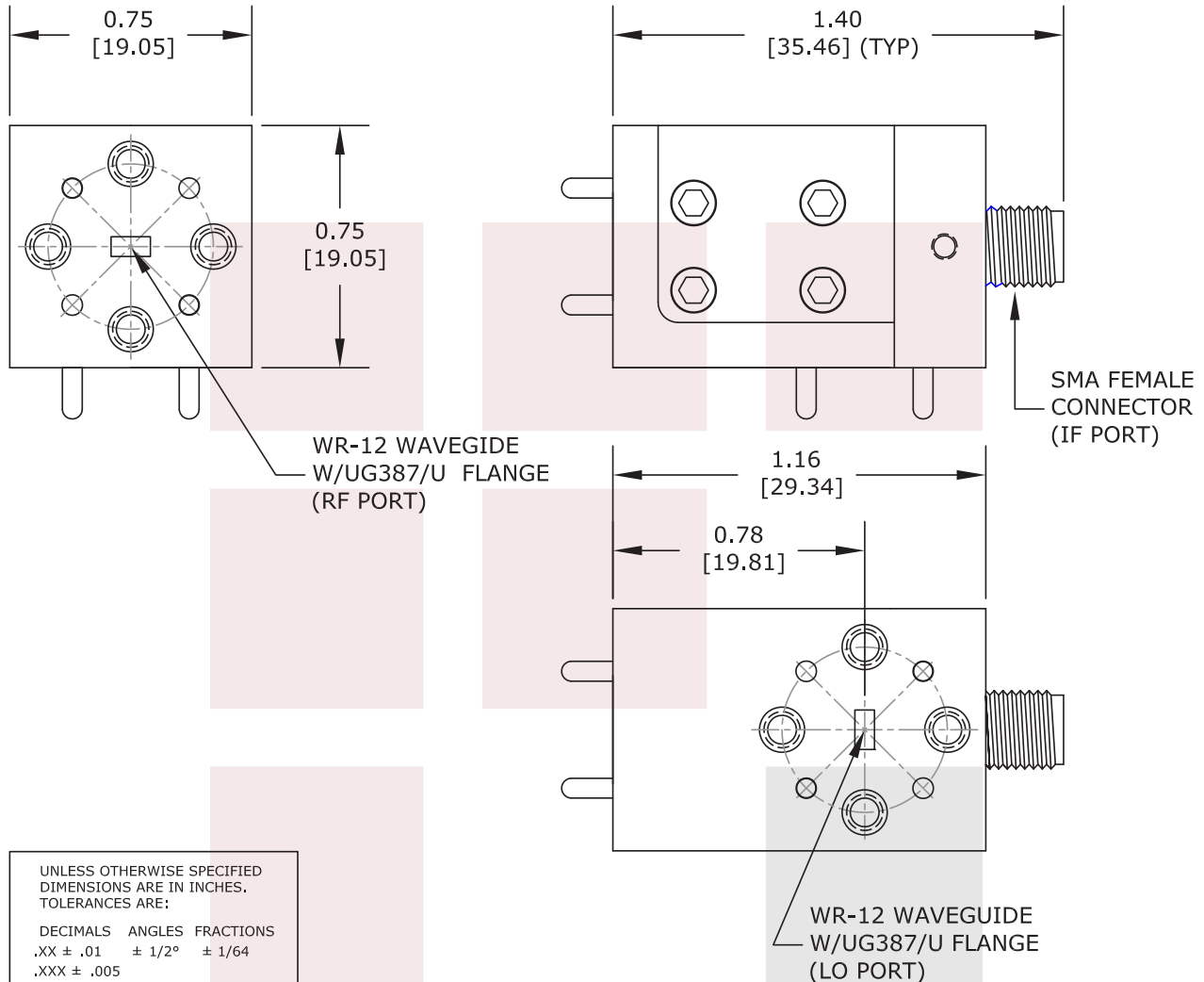


WR-12 Waveguide Mixer Down Converter From 60 GHz to 90 GHz, With an IF Range From DC to 18 GHz And LO Power of +13 dBm, UG-387/U Flange from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities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

For additional information on this product, please click the following link: [WR-12 Waveguide Mixer Down 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 FMMD1001](#)

URL: <http://www.fairviewmicrowave.com/wr-12-waveguide-mixer-down-converter-60-90-ghz-ug-387-u-fmmd1001-p.aspx>

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:

DECIMALS	ANGLES	FRACTIONS
.XX ± .01	± 1/2°	± 1/64
.XXX ± .005		

HOLE DIAMETER	TOLERANCE
.0135 TO .125	+ .004/- .001
.126 TO .250	+ .005/- .001
.251 TO .500	+ .006/- .001
.501 TO .750	+ .008/- .001
.751 TO 1.000	+ .010/- .001
1.001 TO 2.000	+ .012/- .001

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

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TITLE WR-12 Waveguide Mixer Down 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 FMMD1001		CAGE CODE 3FKR5	
CAD FILE	072015	SHEET	SCALE	N/A	SIZE A 2233