



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

Waveguide Converter Mixers - PEWGMX1004

Features

- WR-15 Waveguide Downconverter Mixer
- 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

Description

The PEWGMX1004 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	Minimum	Typical	Maximum	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:

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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [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 PEWGMX1004](#)



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Mechanical Specifications

Size

Length	1 in [25.4 mm]
Width	1 in [25.4 mm]
Height	1 in [25.4 mm]
Weight	0.153 lbs [69.4 g]
Body Material and Plating	Aluminum, Gold

Absolute Maximum Rating

Parameter	Rating
Operating Temperature	-10°C to +45°C
Storage Temperature	-40°C to +100°C
(LO+RF) Input Power (CW)	+17 dBm

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:

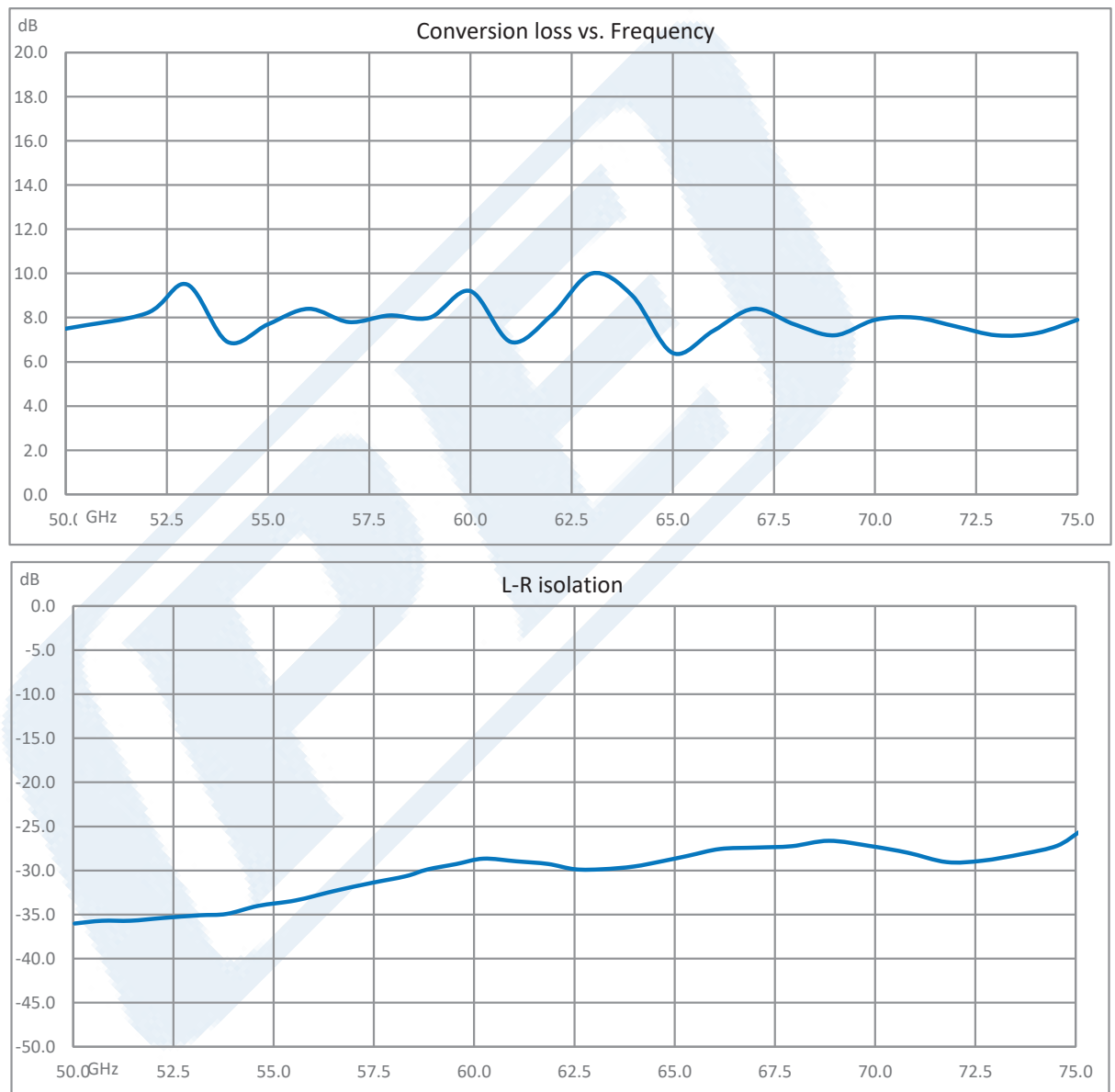
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Waveguide Converter Mixer WR-15 From 50 GHz to 75 GHz, IF from DC to 25 GHz And LO Power of +13 dBm, UG-385/U Flange, V Band PEWGMX1004](#)



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Typical Performance Data



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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 Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

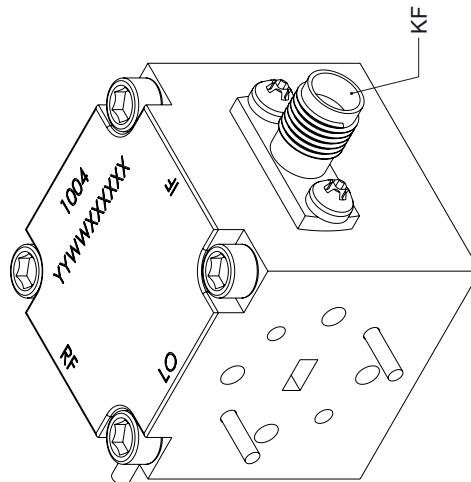
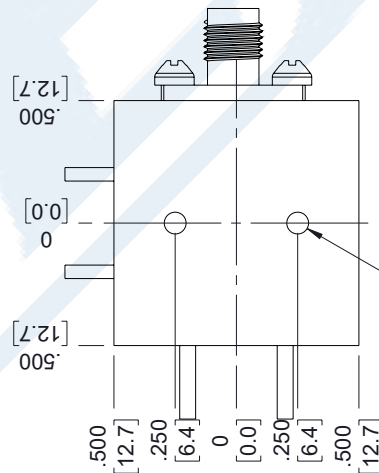
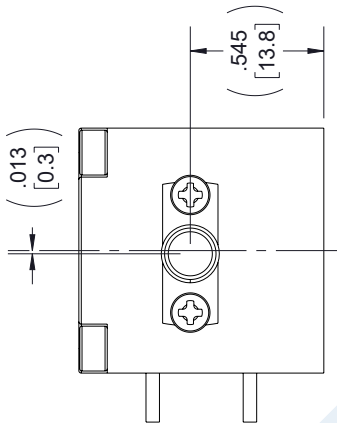
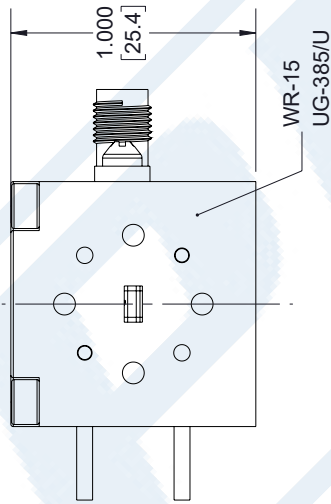
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REVISION


$$2 \times \phi .060$$

UG-385/U

2 X ϕ .089 ∇ 0.38
[2.3]
4-40 UNC ∇ 0.35

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DESCRIPTION

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

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	52010	DSBINIVAS	DEWCMY1004	A

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:		
.X = ±.2	[.5]	FRACTIONS
XX = ±.02	[.5]	± 1/32
XXX = ±.005	[.13]	ANGLES ± 1°

CABLE LENGTH TOLERANCES:

$$\begin{array}{l} >12\ [305] = +1\ [25]/- \\ >12\ [305] \leq 60\ [152] = +2\ [51]/- \\ >60\ [152] \leq 120\ [3048] = +4\ [102]/- \\ >120\ [3048] \leq 300\ [7620] = +6\ [152]/- \\ &\quad -300\ [7620] = +5\%/- \end{array}$$

ALL DIMENSIONS ARE FOR REFERENCE ONLY.

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