



Active 3x Frequency Multiplier, 750 MHz to 1050 MHz
Output Frequency, 7 dB Conversion Gain, SMA

Frequency Multipliers Technical Data Sheet

PE88X2015

Features

- Active Frequency Tripler (x3)
- 250 to 350 MHz Input Frequency
- 750 to 1050 MHz Output Frequency
- Conversion Gain 7 dB typ
- Fundamental Isolation 40 dB typ
- RF Input Drive Level: -3 dBm
- Max RF Input Power: +23 dBm
- DC Bias: +12Vdc @ 105 mA
- SMA Female Connectors
- -40° C to +85° C Operating Temperature
- 50 Ohm Design
- Rugged Design meets MIL-STD-202 Test Conditions

Applications

- Aerospace & Defense
- Test & Measurement
- Microwave Radio Systems
- Military & Commercial Communication Systems
- Research & Development
- SATCOM
- Wireless Communications

Description

The PE88X2015 is an active Frequency Tripler (x3) module that covers a broad output frequency bandwidth from 750 MHz to 1050 MHz. Typical performance includes 7 dB conversion gain, 40 dB fundamental Isolation, with an RF input drive level of -3 dBm. DC bias is +12Vdc with 105 mA DC current. Maximum RF input power is +23 dBm with an operational temperature range of -40° C to +85° C. The rugged and compact package assembly supports SMA female connectors. And for highly reliable operation, the model is designed to meet a variety of MIL-STD-202 test conditions including shock, vibration, altitude, and humidity.

Electrical Specifications (TA= 25°C, VDC1 = 12 Vdc, IDC1 = 105 mA, Pin = -3dBm)

Description	Minimum	Typical	Maximum	Units
Input Frequency Range	250		350	MHz
Output Frequency Range	750		1,050	MHz
Impedance		50		Ohms
Conversion Gain	2	7		dB
Fundamental Isolation (F0)*	30	40		dB
2F0 Isolation*	20	30		dB
4F0 Isolation*	40	50		dB
Input VSWR(@ 300 MHz)		1.4:1	2:1	
Output VSWR(@ 900 MHz)		1.6:1	2:1	
Operating DC Voltage 1	10	12	15	V
Operating DC Current 1		105	125	mA

*Isolation with respect to output power level

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Active 3x Frequency Multiplier, 750 MHz to 1050 MHz Output Frequency, 7 dB Conversion Gain, SMA PE88X2015](#)



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Mechanical Specifications

Size

Length	1.25 in [31.75 mm]
Width	0.563 in [14.3 mm]
Height	1.25 in [31.75 mm]
Weight	0.003 lbs [1.36 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +105 deg C

Humidity

Shock

Vibration

Altitude

MIL-STD-202, Method 103B, Condition B
MIL-STD-202F, Method 213B, Condition B
MIL-STD-202F, Method 204D, Condition B
MIL-STD-202F, Method 105C, Condition B

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

Plotted and Other Data

Notes:

Absolute Maximum Rating

Absolute Maximum Ratings

Parameter	Maximum
RF Input Power	+23dB
Operating Temperature	-40 °C to +85 °
Storage Temperature	-55 °C to +105 °

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Active 3x Frequency Multiplier, 750 MHz to 1050 MHz Output Frequency, 7 dB Conversion Gain, SMA PE88X2015](#)

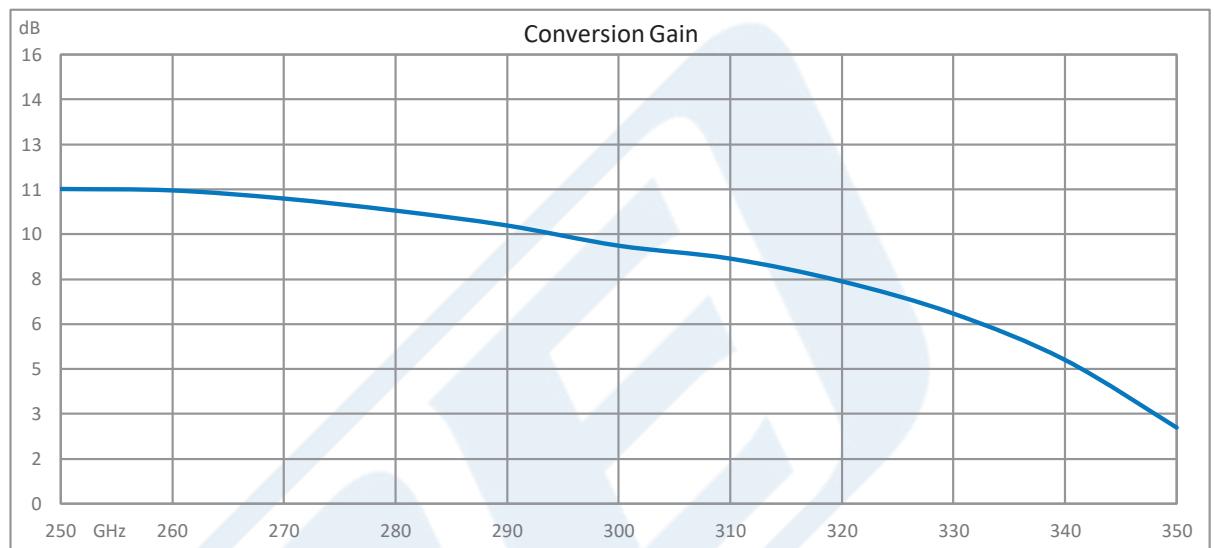


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Typical Performance Data



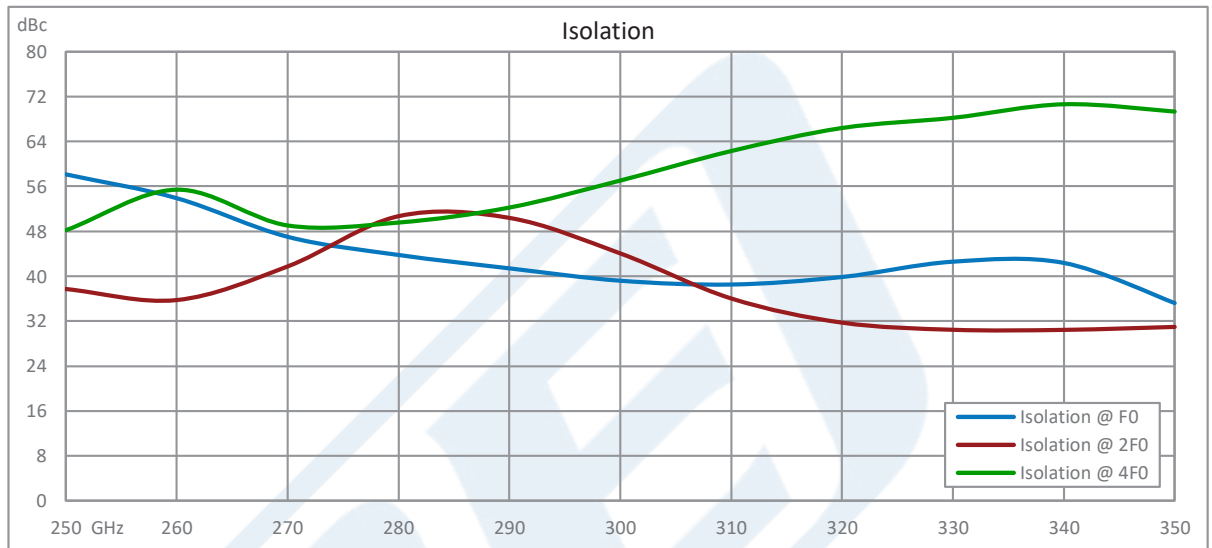
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Active 3x Frequency Multiplier, 750 MHz to 1050 MHz Output Frequency, 7 dB Conversion Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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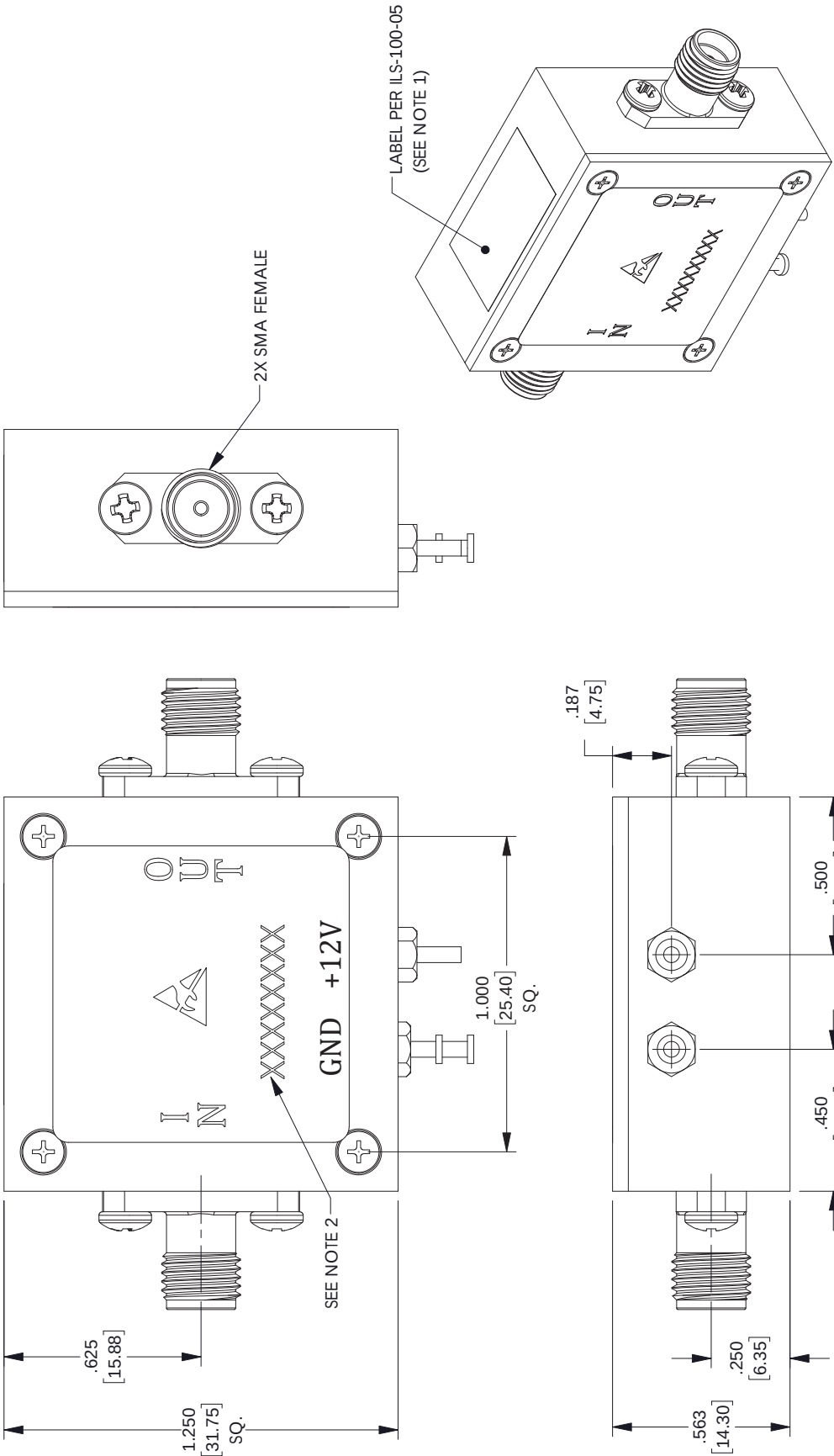
URL: <https://www.pasternack.com/active-3x-frequency-multiplier-1.05-ghz-sma-pe88x2015-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE88X2015 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03-24-2021	TGALLA



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

TOLERANCES:

X = +.2	[5.08]	FRACTIONS
XX = +.02	[.51]	+132
XXX = +.005	[.13]	ANGLES ± 1°

CABLE LENGTH (L) TOLERANCES:

L ≤ 12 [305]	= +1 [25] / -0
12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
300 [7620] < L	= +5% / -0

ALL DIMENSIONS SHOWN
ARE FOR REFERENCE ONLY.

PE PASTERNAK
an INFINITI brand

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SHEET 1 OF 1

SCALE N/A

SIZE A

CAGE CODE 53919

DRAWN BY DFRISIELLO

ITEM NO. PE88X2015

REV A

NOTES:

1. LABEL PER ILS-100-05. FOR INTERNAL REFERENCE ONLY.
LABEL LOCATION SHOULD BE SAME AS SHOWN.
2. SERIAL NUMBER AND DATE CODE ARE COMBINED. EX: 202008280001.

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