



Active 3x Frequency Multiplier, 960 MHz to 1350 MHz
Output Frequency, 6 dB Conversion Gain, SMA

Frequency Multipliers Technical Data Sheet

PE88X2016

Features

- Active Frequency Tripler (x3)
- 320 to 450 MHz Input Frequency
- 960 to 1350 MHz Output Frequency
- Conversion Gain 6 dB typ
- Fundamental Isolation 30 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 PE88X2016 is an active Frequency Tripler (x3) module that covers a broad output frequency bandwidth from 960 MHz to 1350 MHz. Typical performance includes 6 dB conversion gain, 30 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	320		450	MHz
Output Frequency Range	960		1,350	MHz
Impedance		50		Ohms
Conversion Gain	0	6		dB
Fundamental Isolation (F0)*	10	30		dB
2F0 Isolation*	20	30		dB
4F0 Isolation*	30	40		dB
Input VSWR(@ 390 MHz)		1.4:1	1.8:1	
Output VSWR(@ 1170 MHz)		1.7:1	2.2:1	
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, 960 MHz to 1350 MHz Output Frequency, 6 dB Conversion Gain, SMA PE88X2016](#)



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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 °

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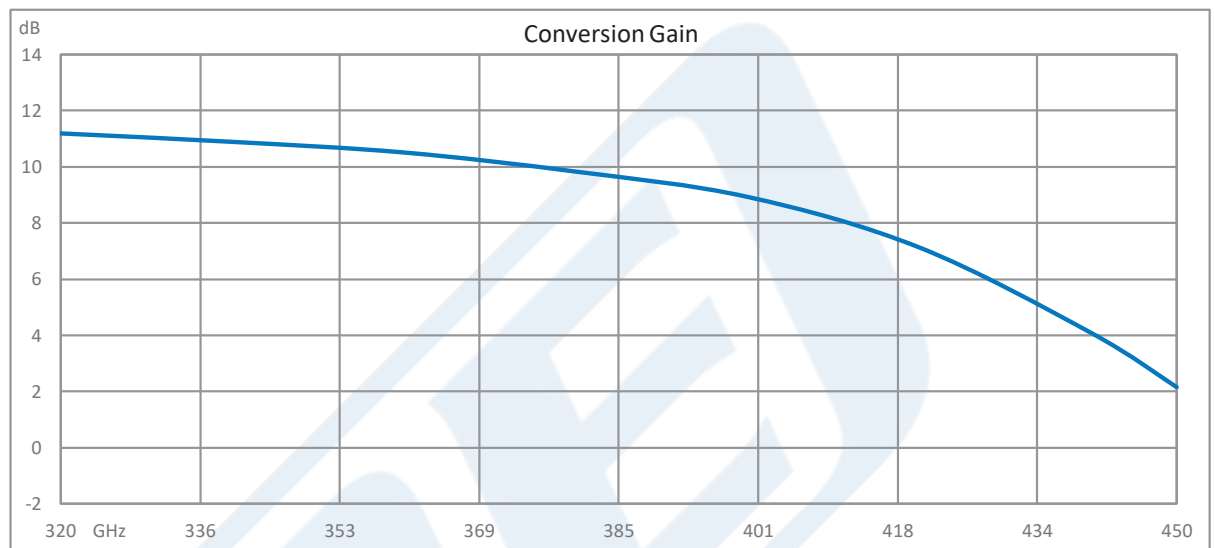


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Typical Performance Data



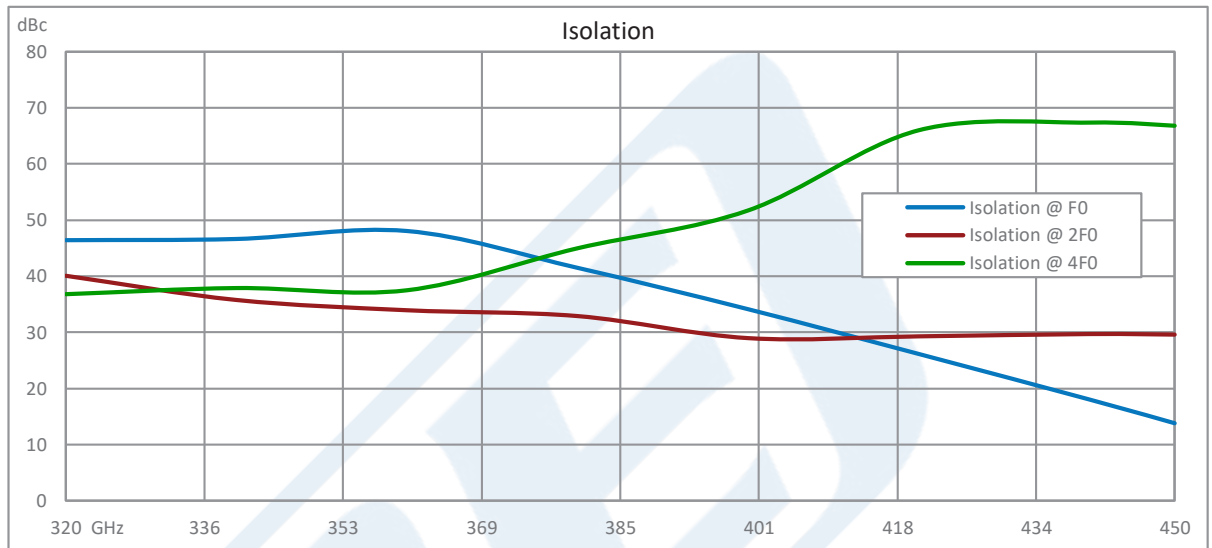
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Active 3x Frequency Multiplier, 960 MHz to 1350 MHz Output Frequency, 6 dB Conversion Gain, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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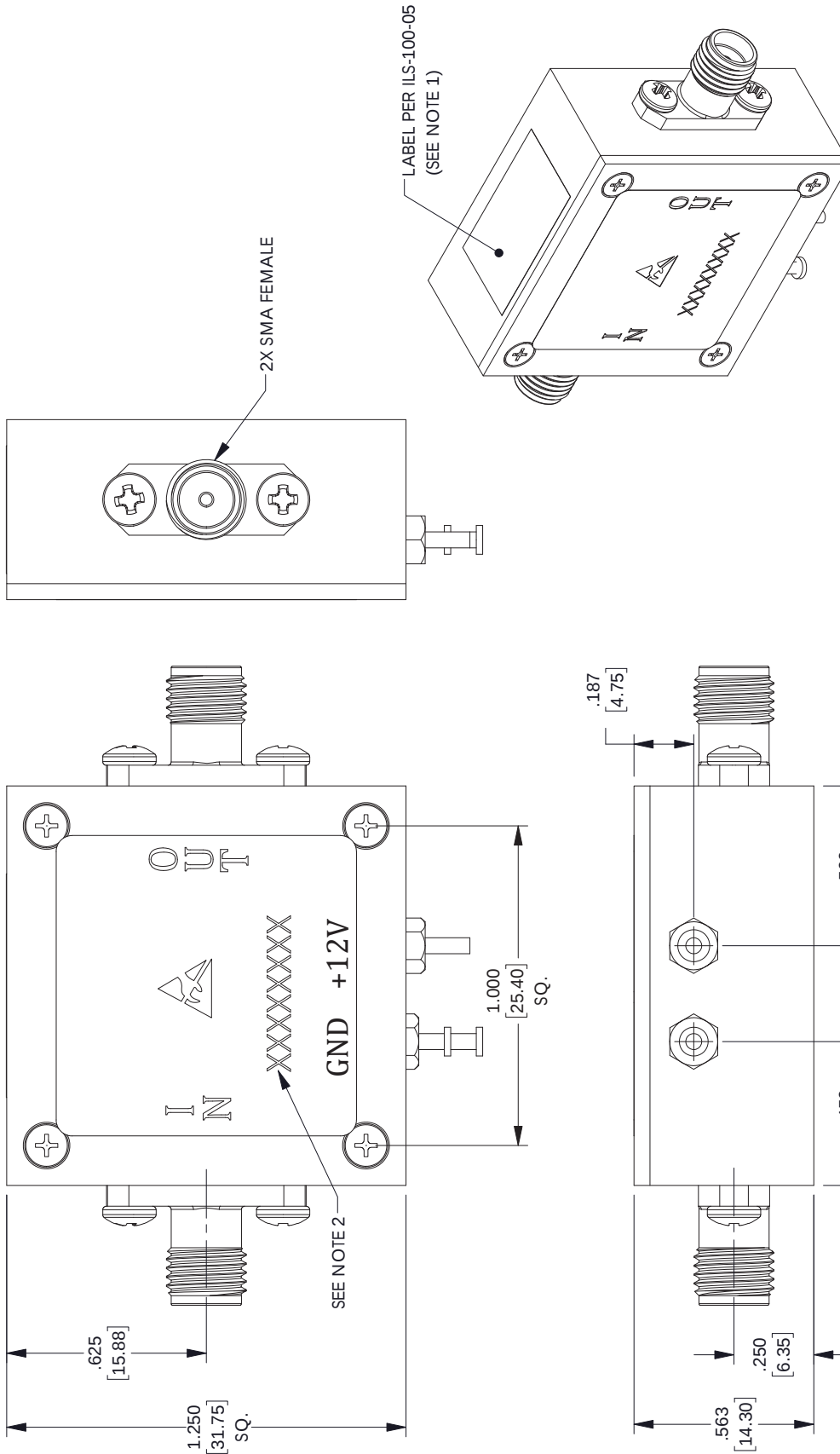
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PE88X2016 CAD Drawing

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



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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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