



Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA

Mixers Technical Data Sheet

PE86X1032

Features

- Triple Balanced Mixer Design
- LO & RF Frequency Range: 2 GHz to 18 GHz
- IF Frequency Range: 1 GHz to 6 GHz
- LO Drive Level +14 dBm
- Conversion Loss: 8 dB typ
- LO to RF Isolation: 25 dB typ
- LO to IF Isolation: 30 dB typ
- RF/LO Connectors: Female SMA
- IF Connector: Female SMA
- Balanced Configuration uses GaAs Schottky diodes

Applications

- Electronic Warfare
- Point-to-Point Radios
- Point-to-Multipoint Radios
- VSAT
- Radar
- Space Systems
- Test Instrumentation
- Sensors
- Telecom Infrastructure
- Military End-Use

Description

The PE86X1032 is a broadband Triple Balanced Mixer that operates across an RF and LO frequency range from 2 GHz to 18 GHz with an IF frequency range of 1 GHz to 6 GHz and supports an LO drive level of +14 dBm max. The design utilizes high performance GaAs Schottky diodes in a balanced configuration to produce exceptional typical performance that includes Conversion Loss of 8 dB, 25 dB LO to RF Isolation, and 30 dB LO to IF Isolation. The rugged compact package assembly supports female SMA connectors on the RF, LO and IF port.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
RF Frequency Range	2		18	GHz
LO Frequency Range	2		18	GHz
IF Frequency Range	1		6	GHz
Impedance		50		Ohms
Conversion Loss		8		dB
LO to RF Isolation		25		dB
LO to IF Isolation		30		dB
LO Input Power	+10		+14	dBm

Electrical Specification Notes:

Max LOin (dBm): +20dBm

Max RF/IF (dBm): +10dBm

DC Bias at the RF input may damage the amplifier

All specifications are tested under case temperature @25°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA PE86X1032](#)



Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA

Mixers Technical Data Sheet

PE86X1032

Mechanical Specifications

Size

Length	0.811 in [20.6 mm]
Width	0.591 in [15.01 mm]
Height	0.276 in [7.01 mm]

Configuration

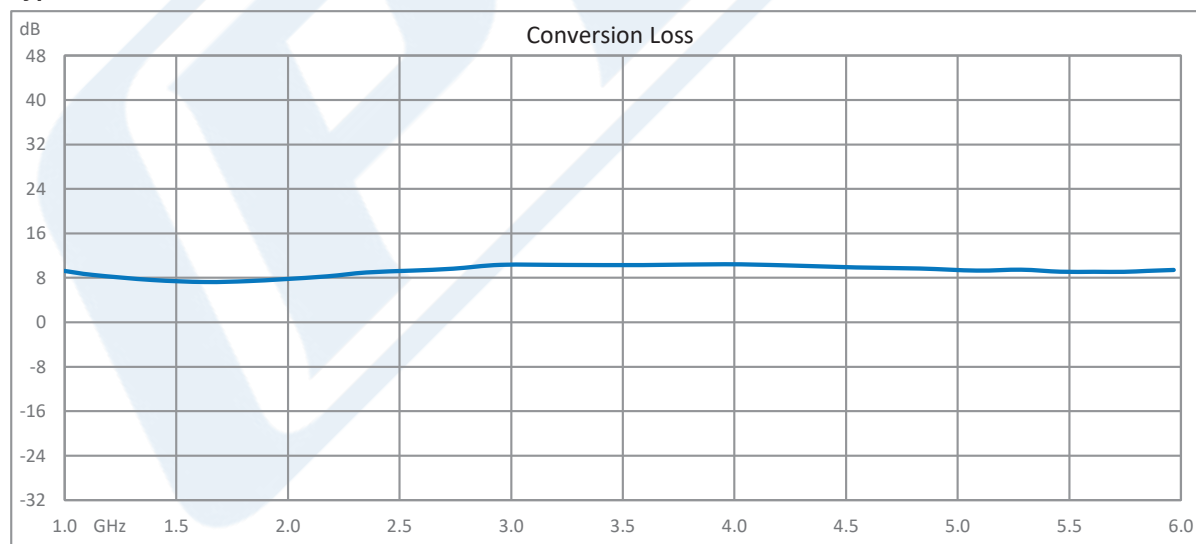
Design	Triple Balanced
Package Type	Connectorized
Connector Option	Field Replaceable
RF Connector	SMA Female
LO Connector	SMA Female
IF Connector	SMA Female

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

Plotted and Other Data

Notes:

Typical Performance Data



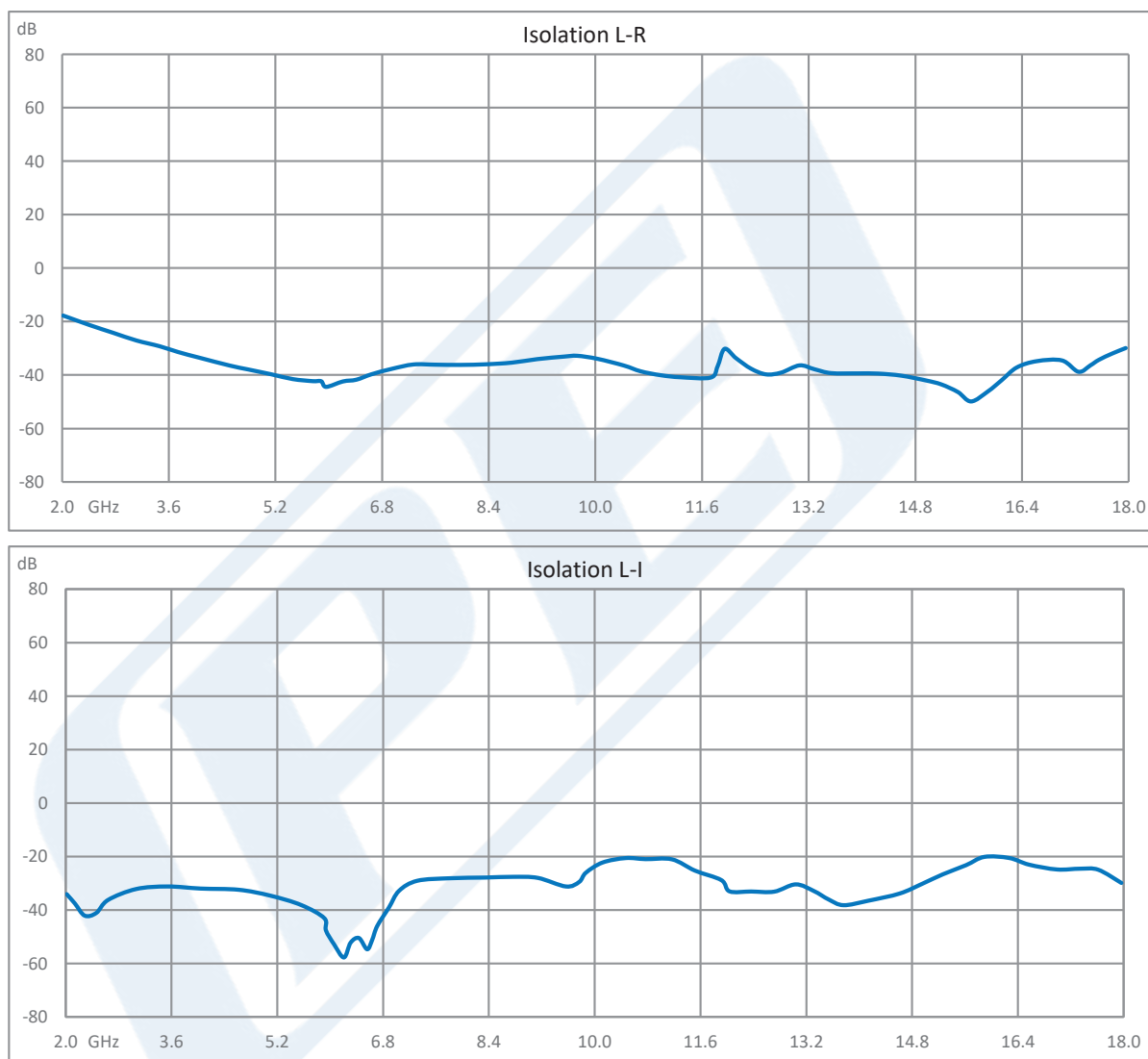
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA PE86X1032](#)



Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA

Mixers Technical Data Sheet

PE86X1032



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA PE86X1032](#)



Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA

Mixers Technical Data Sheet

PE86X1032

Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA PE86X1032](https://www.pasternack.com/sma-mixer-2-18-ghz-if-1-6-ghz-pe86x1032-p.aspx)

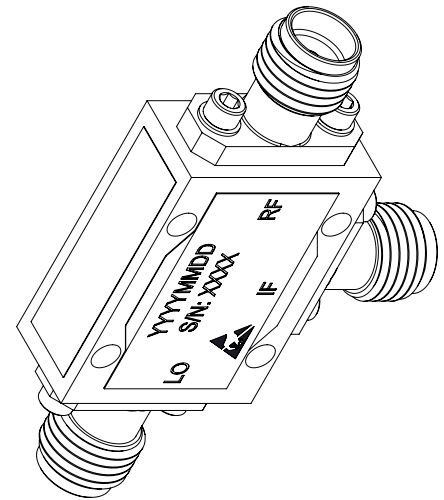
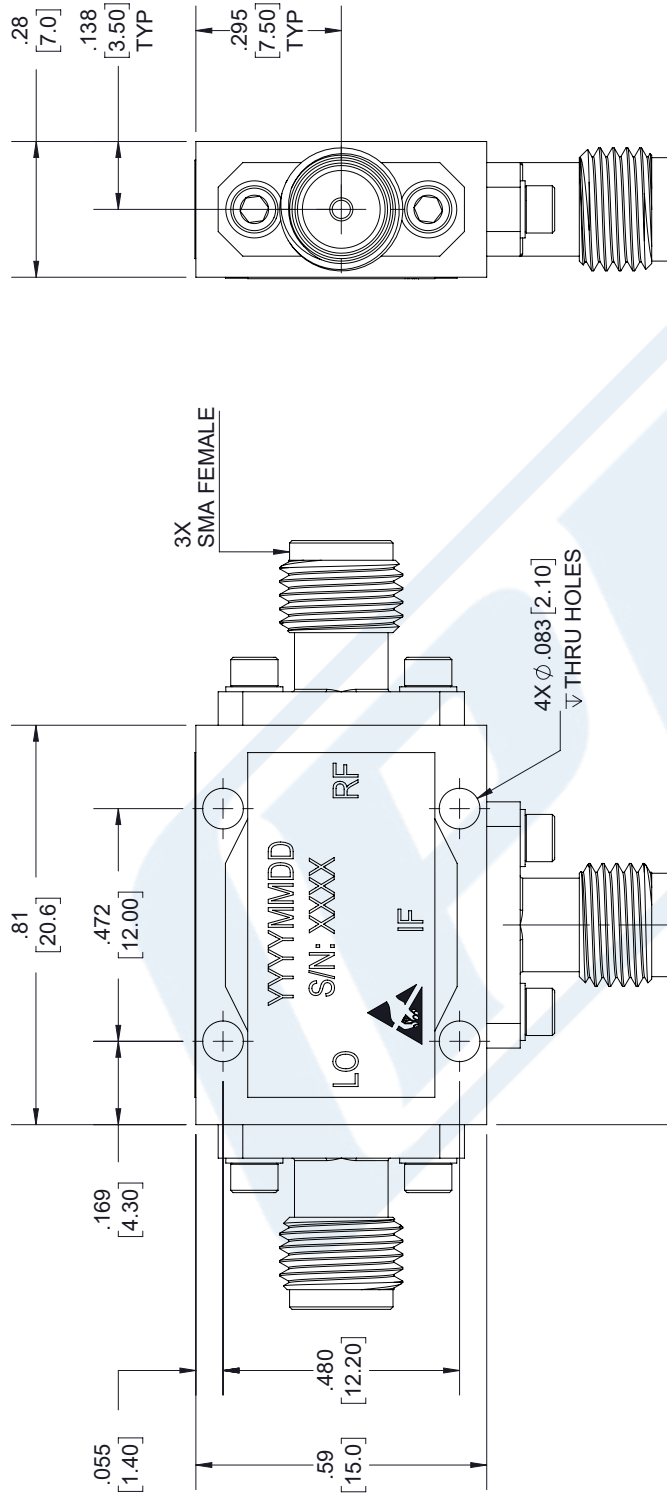
URL: <https://www.pasternack.com/sma-mixer-2-18-ghz-if-1-6-ghz-pe86x1032-p.aspx>

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.

PE86X1032 CAD Drawing

Triple Balanced Mixer Operating from 2 GHz to 18 GHz with an IF Range from 1 GHz to 6 GHz and LO Power of +14 dBm, Field Replaceable SMA

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	8/31/2020	T. GALLA



LABEL



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [] ARE MILLIMETERS				THIRD-ANGLE PROJECTION			
TOLERANCES:				THE INFORMATION AND DESIGN IN THIS DOCUMENT IS THE PROPERTY OF PASTERNAK CORPORATION ALL RIGHTS RESERVED.			
X = ± .2 [.008] FRACTIONS .XX = ± .02 [.01] 1/32 .XXX = ± .005 [.13] ANGLES ± 1°				SHEET 1 OF 1			
CABLE LENGTH (L) TOLERANCES: L ≤ 12 [305] = ± .125 [-0 12 [305] < L ≤ 60 [1524] = ± .25 [-1 60 [1524] < L ≤ 120 [3048] = ± .50 [-1 120 [3048] < L ≤ 300 [7620] = ± 1.0 [-2 300 [7620] < L = ± .5% [-0				SCALE N/A			
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.				REV A			
SIZE A				CAGE CODE DRAWN BY 53919 K.DANG		ITEM NO. PE86X1032	
PASTERNAK® an INFINITE® brand				Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451 Website: www.pasternack.com E-mail: sales@pasternack.com			