



Triple Balanced Mixer Operating From
 6 GHz to 18 GHz With an IF Range From 1.5 GHz
 to 8 GHz And LO Power of +10 dBm, SMA

Mixers Technical Data Sheet

PE8654

Features

- Triple Balanced Mixer Module
- RF/LO Frequency 6 GHz to 18 GHz
- IF Bandwidth 1.5 GHz to 8 GHz
- LO Drive Level +10 dBm
- Low Conversion Loss of 7 dB
- High LO/RF Isolation of 27 dB

Applications

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

Description

Pasternack's PE8654 is a triple balanced mixer module that operates across an RF and LO frequency range of 6 GHz to 18 GHz with an IF frequency range of 1.5 GHz to 8 GHz. This triple balanced mixer provides excellent LO to RF isolation of 27 dB. The PE8654 also provides low conversion loss of 7 dB. RF Mixers are commonly used to convert from one frequency to another. This is done by "mixing" two signals of different frequencies, also known as heterodyning.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
RF Frequency Range	6		18	GHz
LO Frequency Range	6		18	GHz
IF Frequency Range	1.5		8	GHz
Impedance		50		Ohms
Conversion Loss		7	9	dB
LO to RF Isolation	20	27		dB
LO to IF Isolation	20	25		dB
Input at 1dB Compression Point		+4		dBm
Input at 3rd Order Intercept Point		+14		dBm
LO Input Power		+10	+13	dBm
Input Power (CW)			0.35	Watts
Input Power (Peak) 1 usec pulse, 0.1% duty cycle			0.5	Watts
Input Current (Peak)			0.25	Amps

Electrical Specification Notes:
 Values at 25°C, sea level.

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 6 GHz to 18 GHz With an IF Range From 1.5 GHz to 8 GHz And LO Power of +10 dBm, SMA PE8654](#)

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.



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Mechanical Specifications

Size

Length	1.55 in [39.37 mm]
Width	0.31 in [7.87 mm]
Height	0.965 in [24.51 mm]
Weight	0.041 lbs [18.6 g]
Housing Material and Plating	Passivated Stainless Steel

Configuration

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

Environmental Specifications

Temperature

Operating Range	-55 to +125 deg C
Storage Range	-65 to +150 deg C

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

Plotted and Other Data

Notes:

Triple Balanced Mixer Operating From 6 GHz to 18 GHz With an IF Range From 1.5 GHz to 8 GHz And LO Power of +10 dBm, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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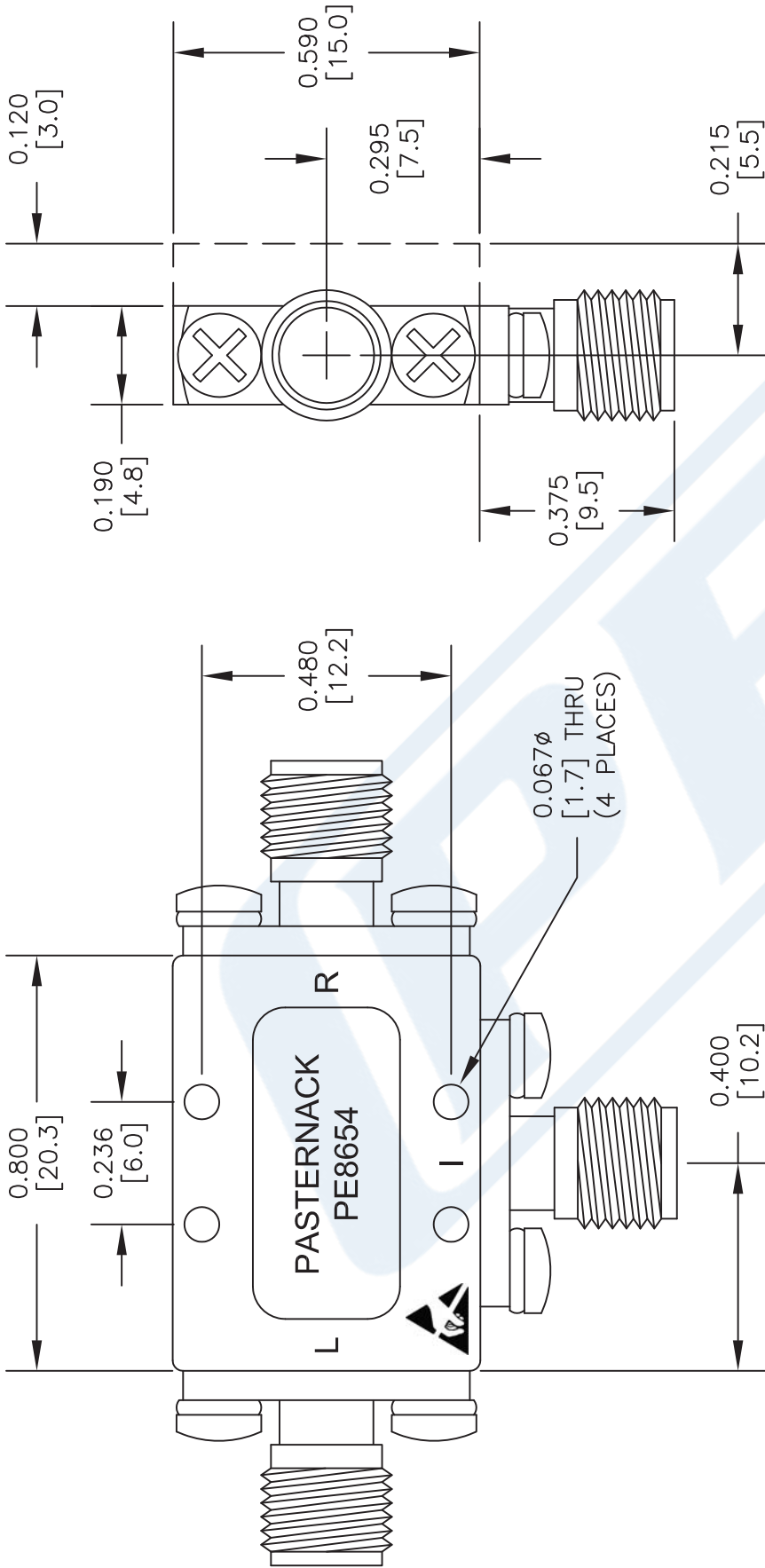
URL: <https://www.pasternack.com/sma-mixer-6-18-ghz-if-1.5-8-ghz-pe8654-p.aspx>

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PE8654 CAD Drawing

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STANDARD TOLERANCES	
.X	±0.2
.XX	±0.1
.XXX	±0.05

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

NOTES:
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE
PE8654

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FSCM NO. 53919

CAD FILE 071216

SCALE N/A

SIZE A

2233