



Double Balanced Mixer Operating From 2 GHz to 18 GHz With an IF Range From DC to 600 MHz And LO Power of +10 dBm, SMA

## Mixers Technical Data Sheet

PE8652

### Features

- Double Balanced Mixer Module
- RF/LO Frequency 2 GHz to 18 GHz
- IF Bandwidth DC to 600 MHz
- LO Drive Level +10 dBm
- Low Conversion Loss of 6.5 dB
- High LO/RF Isolation of 28 dB

### Applications

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

### Description

Pasternack's PE8652 is a double balanced mixer module that operates across an RF and LO frequency range of 2 GHz to 18 GHz with an IF frequency range of DC to 600 MHz. This double balanced mixer provides excellent LO to RF isolation of 28 dB. The PE8652 also provides low conversion loss of 6.5 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	2		18	GHz
LO Frequency Range	2		18	GHz
IF Frequency Range	DC		600	MHz
Impedance		50		Ohms
Conversion Loss		6.5	8	dB
LO to RF Isolation	20	28		dB
LO to IF Isolation	18	25		dB
Input at 1dB Compression Point		+4		dBm
Input at 3rd Order Intercept Point		+14		dBm
LO Input Power		+10		dBm
Input Power (CW)			0.2	Watts
Input Current (Peak)			0.1	Amps

#### Electrical Specification Notes:

Values at 25°C, sea level.

Peak input power for any single port: +23 dBm peak

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Double Balanced Mixer Operating From 2 GHz to 18 GHz With an IF Range From DC to 600 MHz And LO Power of +10 dBm, SMA PE8652](#)

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	0.967 in [24.56 mm]
Weight	0.041 lbs [18.6 g]
Housing Material and Plating	Passivated Stainless Steel

#### Configuration

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

### Environmental Specifications

#### Temperature

Operating Range	-45 to +90 deg C
Storage Range	-65 to +100 deg C

### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant	
REACH Compliant	12/17/2015

### Plotted and Other Data

Notes:

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Double Balanced Mixer Operating From 2 GHz to 18 GHz With an IF Range From DC to 600 MHz 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.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Double Balanced Mixer Operating From 2 GHz to 18 GHz With an IF Range From DC to 600 MHz And LO Power of +10 dBm, SMA PE8652](https://www.pasternack.com/50-ohm-sma-mixer-2000-mhz-18000-mhz-if-dc-600-mhz-pe8652-p.aspx)

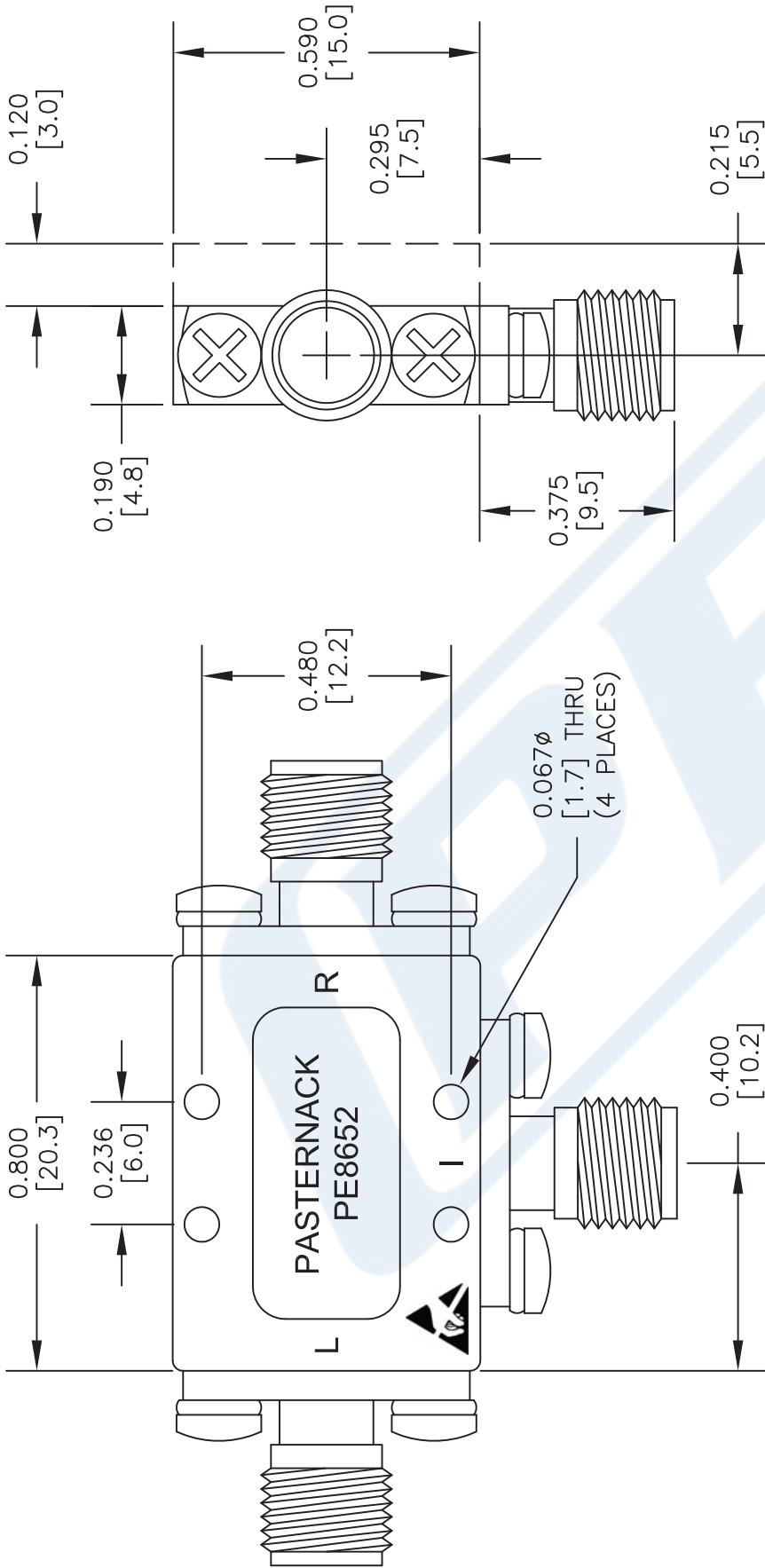
URL: <https://www.pasternack.com/50-ohm-sma-mixer-2000-mhz-18000-mhz-if-dc-600-mhz-pe8652-p.aspx>

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# PE8652 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  
**PE8652**

FSCM NO. 53919

CAD FILE 071216

SCALE N/A

SIZE A

2233

**(PE) PASTERNAK®**  
 THE ENGINEER'S RF SOURCE

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