



24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 14 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4038

The PE15A4038 is a broadband coaxial power amplifier, operating in the 0.5 to 2 GHz frequency range. The amplifier offers 24 dBm of P1dB min and 14 dB small signal gain typ, with the gain flatness of  $\pm 0.4$  dB typ. This power amplifier requires only a single positive DC supply, in unconditionally stable, operates over the temperature range of  $-30^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ , and is Hermetically sealed.

**Features**

- 0.5 to 2 GHz Frequency Range
- P1dB: 24 dBm min
- Small Signal Gain: 14 dB typ
- Gain Flatness:  $\pm 0.4$  dB typ
- 50 Ohm Input and Output Matched
- $-30$  to  $+70^{\circ}\text{C}$  Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in DC Voltage Regulator

**Applications**

- Laboratory Applications
- R&D Labs
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communications
- Wireless Communications
- Unmanned Systems
- Microwave Radio Systems
- Low Noise Amplifier
- General Purpose Amplification
- RF Front Ends

**Electrical Specifications** (TA=  $25^{\circ}\text{C}$ , VDC1 = 12 Vdc)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.5		2	GHz
Gain	13	14		dB
Gain Flatness		$\pm 0.4$	$\pm 0.5$	dB
Output at 1 dB Compression Point	+24			dBm
Output 3 <sup>rd</sup> Intercept Point		+34		dBm
Noise Figure		2.7		dB
Input VSWR		2:1		
Output VSWR		2:1		
Operating DC Voltage 1	11	12	15	Volts
Operating DC Current		180	200	mA
Operating Temperature Range (OTR)	-30		+70	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 14 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA PE15A4038](#)



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**Mechanical Specifications**

**Size**

Length	1.1 in [27.94 mm]
Width	0.9 in [22.86 mm]
Height	0.5 in [12.7 mm]
Input Connector	SMA Female
Output Connector	SMA Female

**Environmental Specifications**

**Temperature**

Operating Range	-30 to +70 deg C
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**ESD Sensitivity**

ESD Sensitive Material, Transport in Approved ESD bags. Handle only in approved ESD Workstation.



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

**Plotted and Other Data**

Notes:

- Values at +25 °C, sea level

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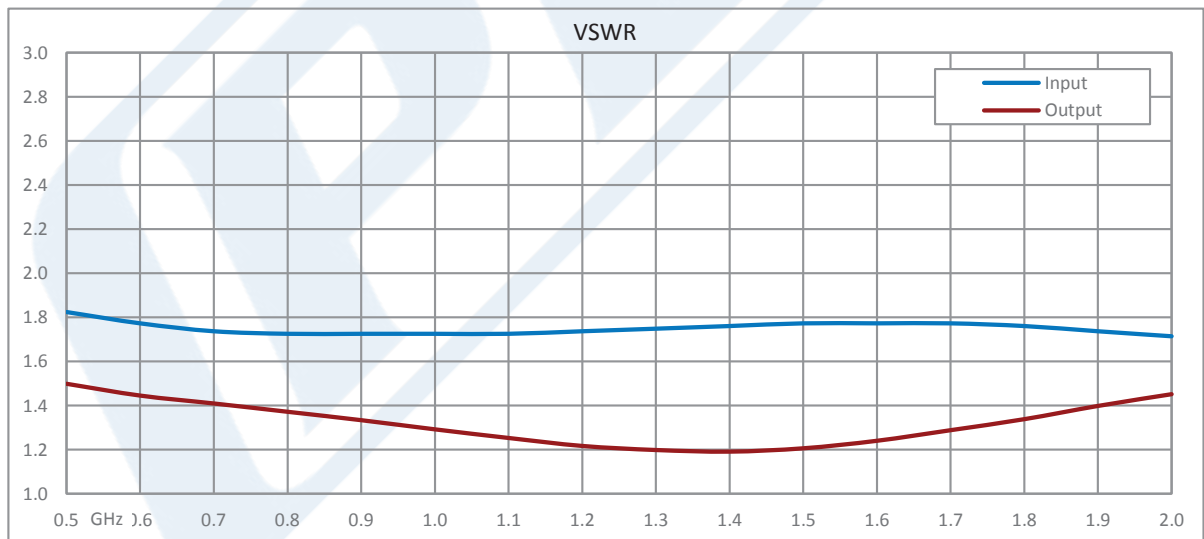
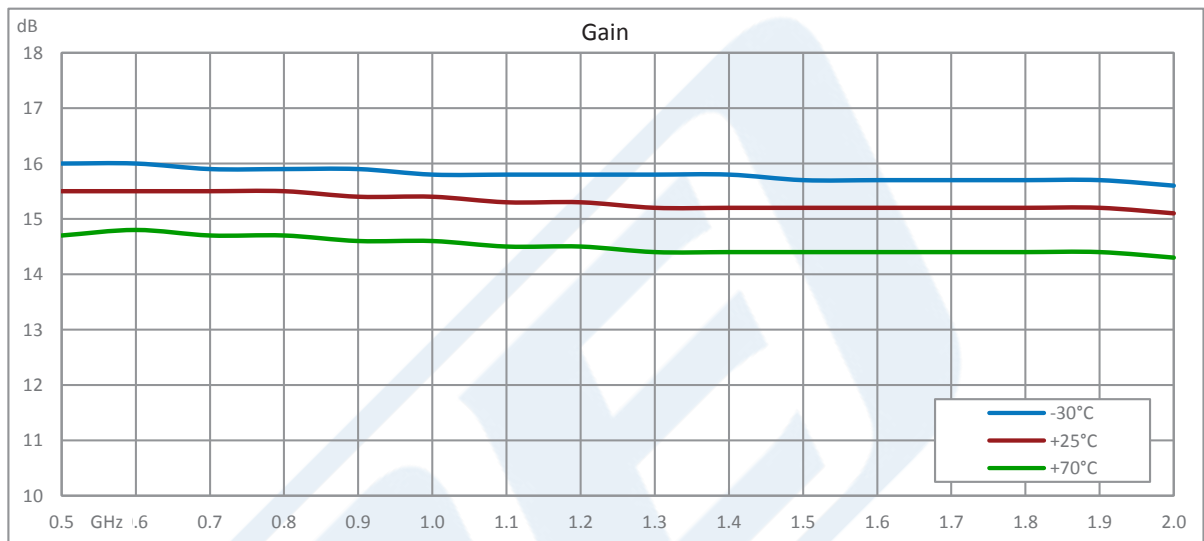


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Typical Performance Data



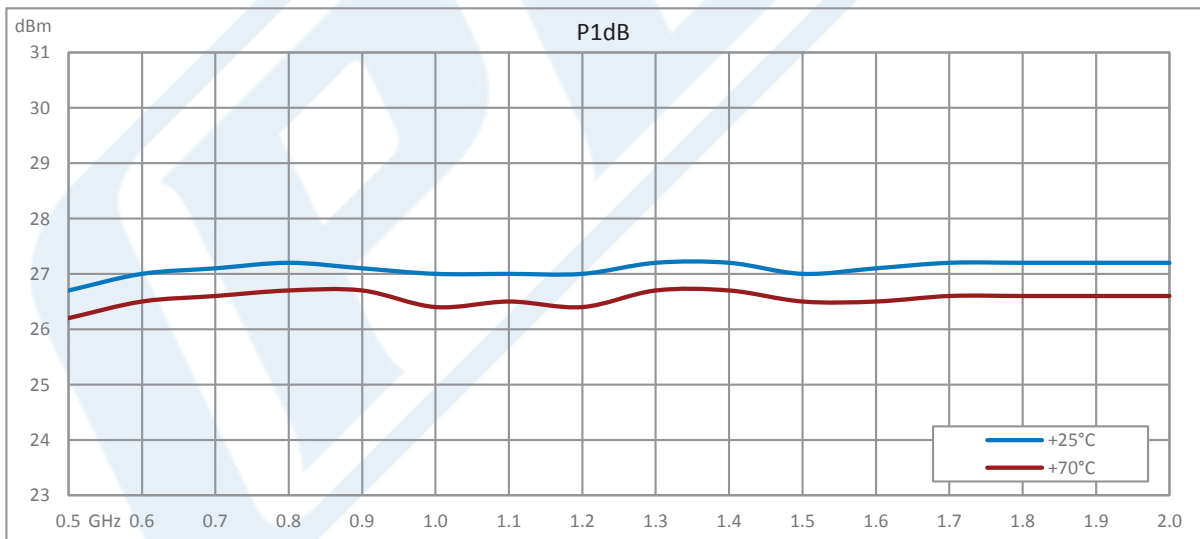
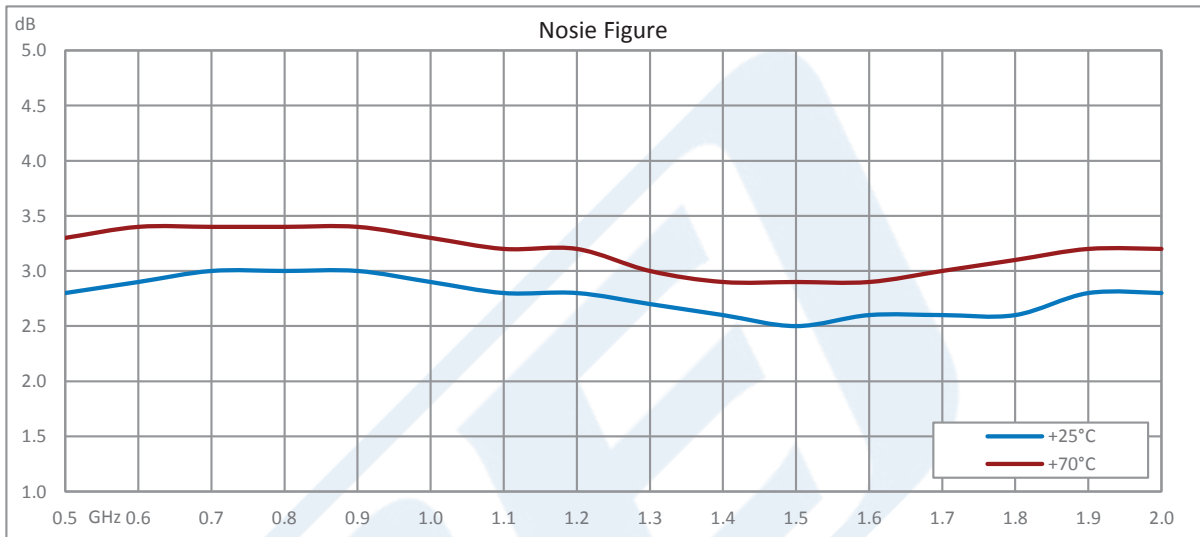
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24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 14 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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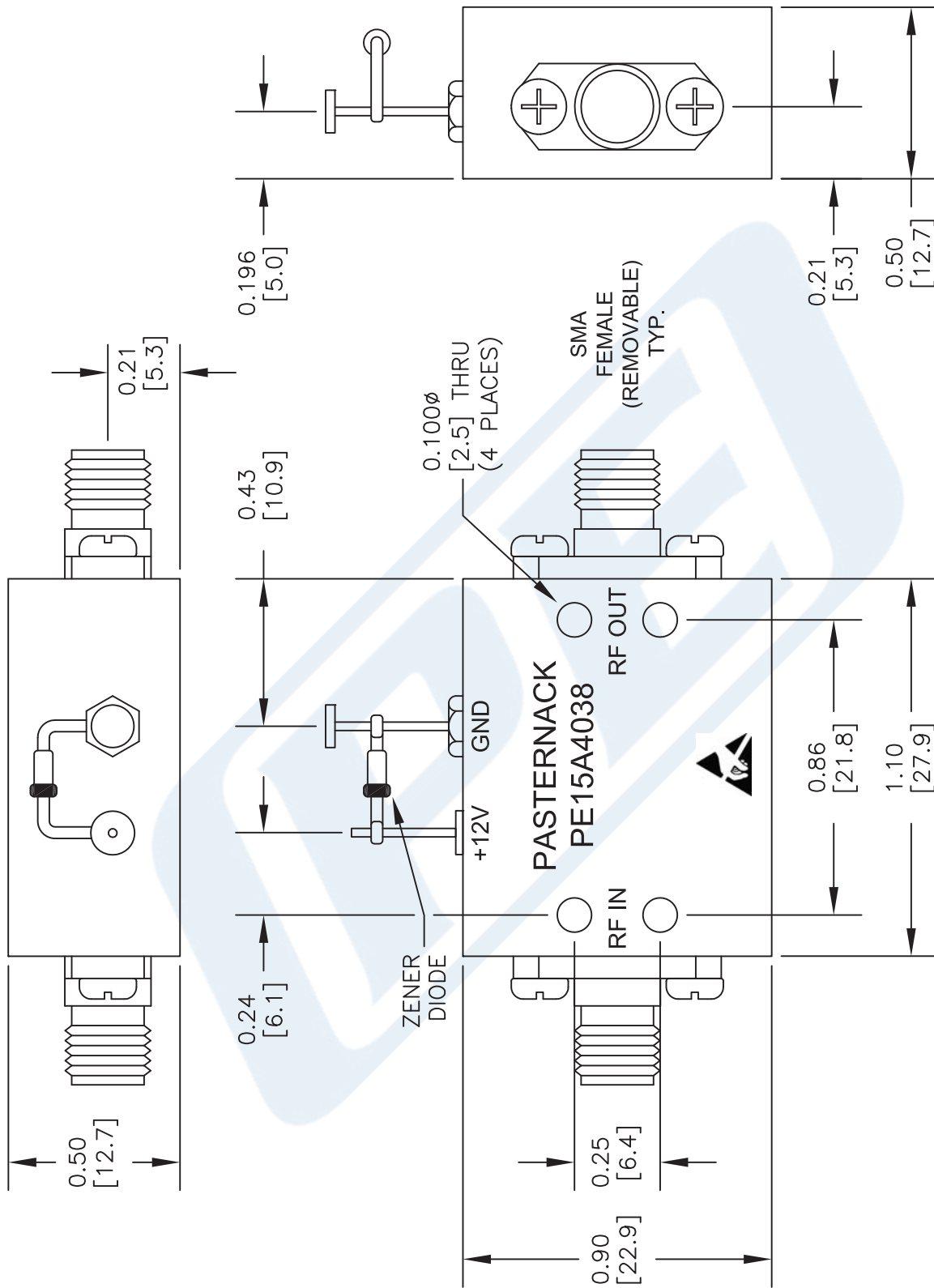
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# PE15A4038 CAD Drawing

24 dBm P1dB, 500 MHz to 2 GHz, Medium Power Broadband Amplifier, 14 dB Gain, 34 dBm IP3, 2.7 dB NF, SMA

MOUNTING SURFACE



DWG TITLE

**PE15A4038**

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].

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FSCM NO. 53919

CAD FILE 032416

SCALE N/A

SIZE A

2233