



7 Watt P1dB, 8.5 GHz to 10.5 GHz, High Power
Amplifier, 36 dB Gain, 47 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A5044

The PE15A5044 is a power coaxial amplifier operating in the 8.5 to 10.5 GHz frequency range. The amplifier offers 38.5 dBm typ of P1dB power and a high 36 dB typical small signal gain with the gain flatness of ± 1.5 dB typ. Input/output ports are matched for 50 ohms and are AC coupled. The amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of -40°C and +70°C.

Features

- 8.5 to 10.5 GHz Frequency Range
- P1dB +38.5 dBm typ
- Small Signal Gain: 36 dB typ
- Gain Flatness ± 1.5 dB typ
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply

Applications

- Military Radio
- Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 4,000mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	8.5		10.5	GHz
Small Signal Gain	33	36		dB
Gain Flatness		± 1.5	± 1.8	dB
Output Power at 1 dB Compression Point	+37.5	+38.5		dBm
Output 3rd Order Intercept Point		+47		dBm
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage	11	12	13	Volts
Operating DC Current		4,000		mA
Operating Temperature Range	-40		+70	°C

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +70	°C
Storage Temperature	-55 to +85	°C



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

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [7 Watt P1dB, 8.5 GHz to 10.5 GHz, High Power Amplifier, 36 dB Gain, 47 dBm IP3, SMA PE15A5044](#)



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Mechanical Specifications

Size

Length	2.36 in [59.94 mm]
Width	2.91 in [73.91 mm]
Height	0.63 in [16 mm]
Weight	0.366 lbs [166.01 g]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-40 to +70 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.



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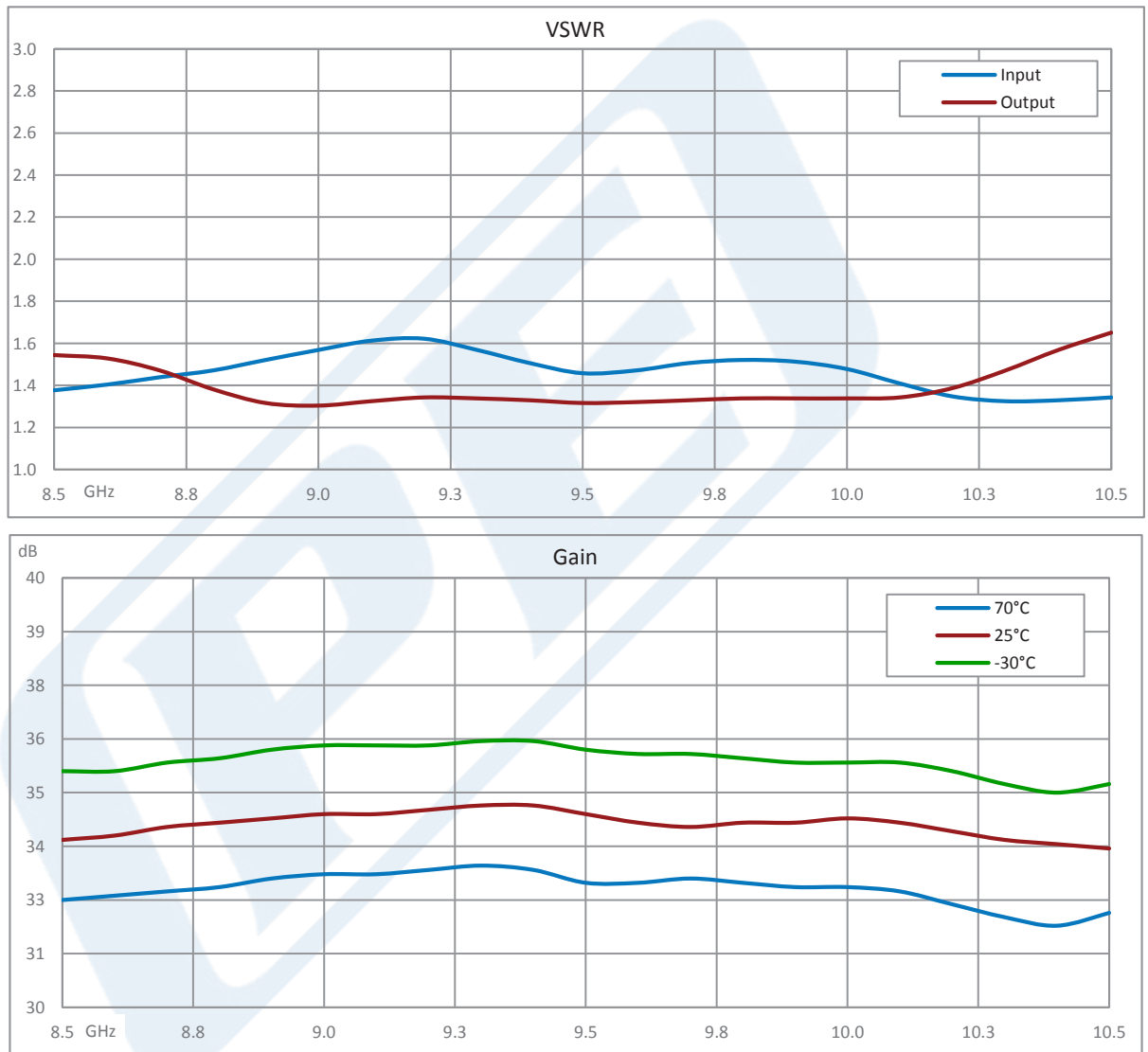


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Typical Performance Data



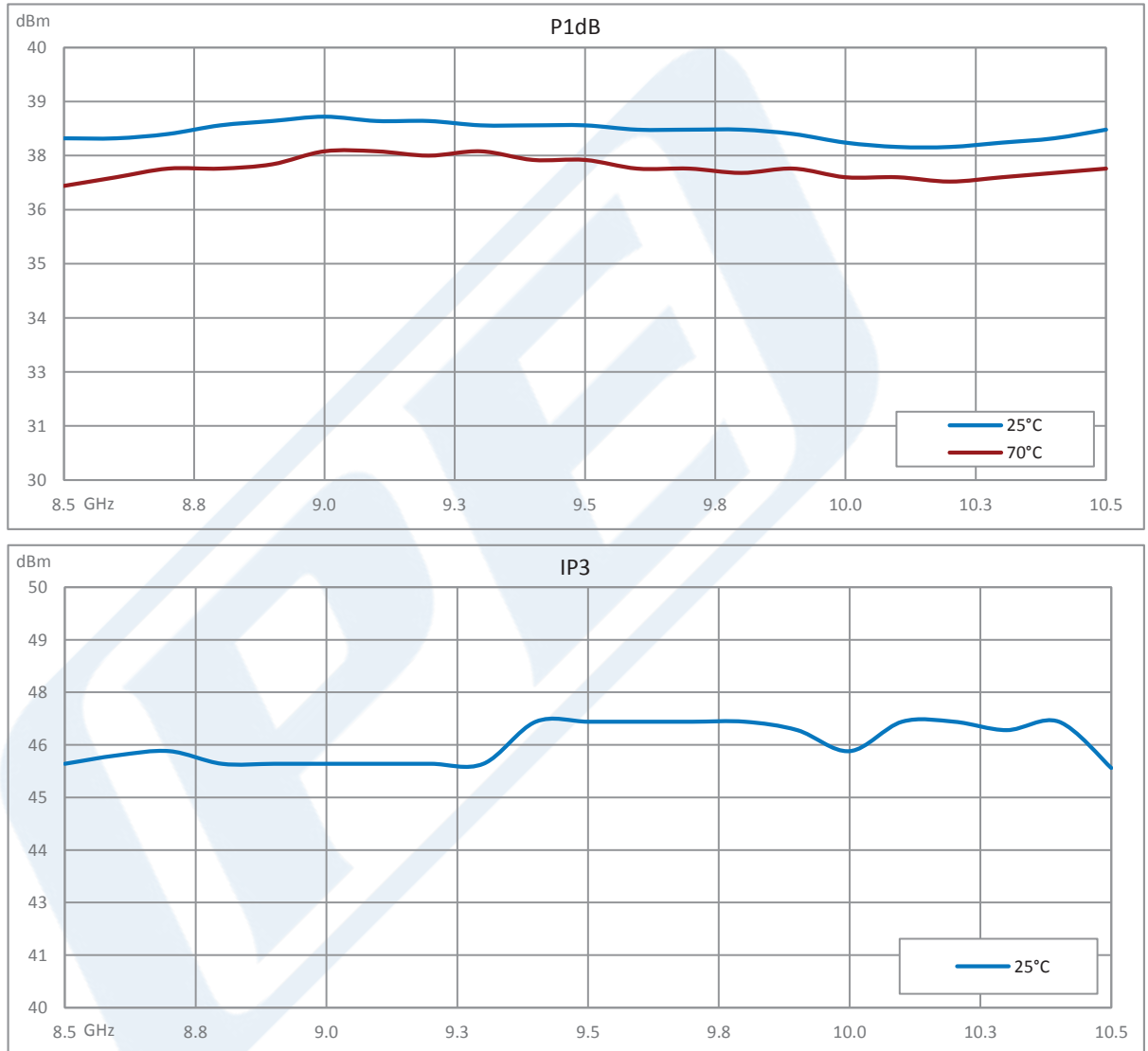
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7 Watt P1dB, 8.5 GHz to 10.5 GHz, High Power Amplifier, 36 dB Gain, 47 dBm IP3, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

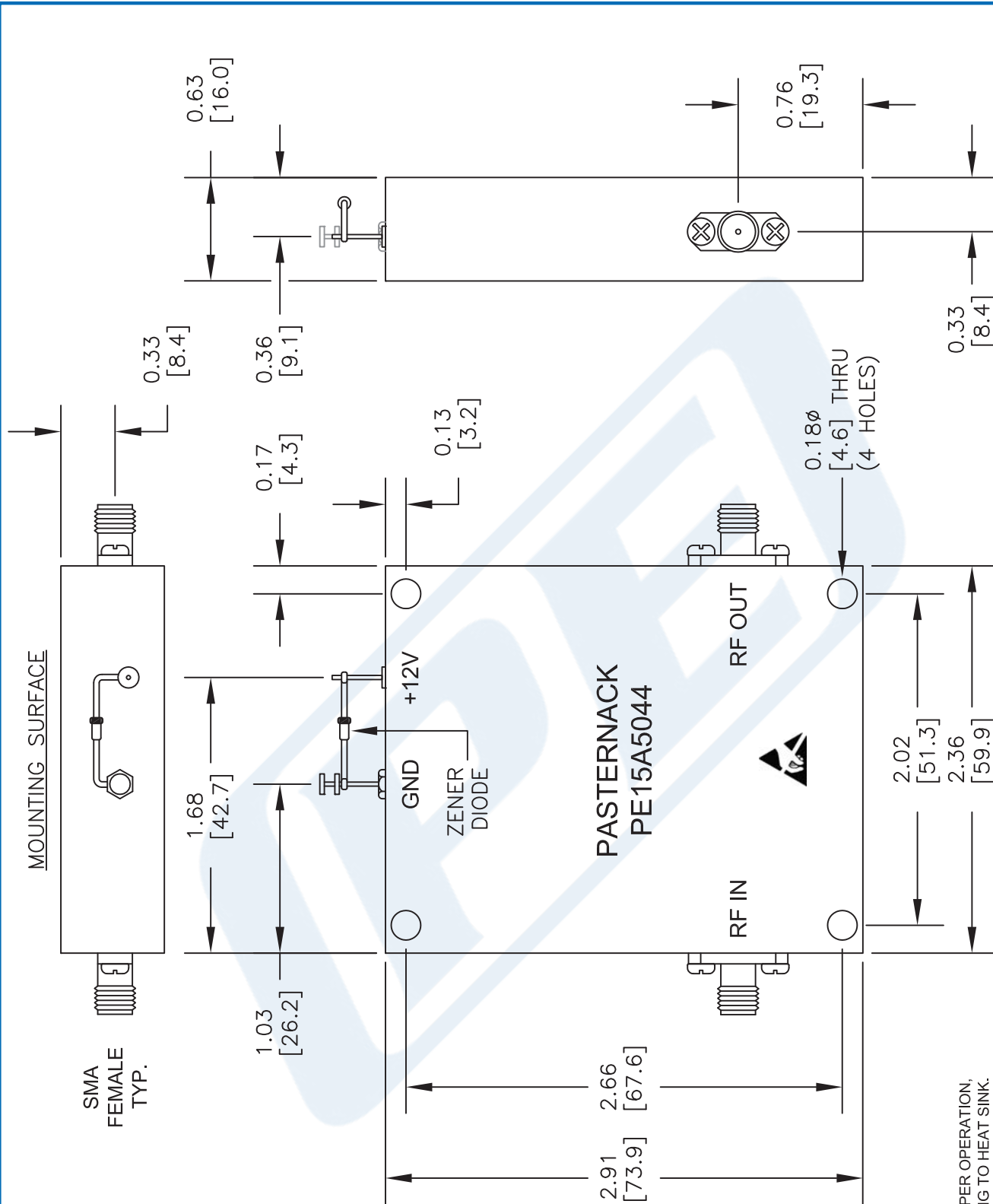
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PE15A5044 CAD Drawing

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NOTE:
HEAT SINK REQUIRED FOR PROPER OPERATION,
UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

PE PASTERNAK
THE ENGINEER'S RF SOURCE

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DWG TITLE

PE15A5044

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].

FSCM NO. 53919

CAD FILE 032416

SCALE N/A

SIZE A

2233