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THE ENGINEER'S RF SOURCE



8 Watt Psat, 2 GHz to 4 GHz, High Power Amplifier, 39 dB Gain, 48 dBm IP3, SMA

TECHNICAL DATA SHEET PE15A5038

The PE15A5038 is a 8 W high gain Class A/AB coaxial power amplifier operating in the 2 to 4 GHz frequency range. The amplifier offers 8 Watts typical of saturated power and 39 dB minimun small signal gain with ±1.5 dB maximum of gain flatness. The amplifier requires typically a +13V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of 0°C and +50°C. Adequate Heat Sink Required.

Features

- 2 GHz to 4 GHz Frequency Range
- Psat 8 Watts typ
- Small Signal Gain: 39 dB min
- Gain Flatness ±1.5 dB max
- IP3 48 dBm typ
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply
- Heat Sink Required
- RF Input Signal Format: CW/AM/FM/Pulse

Applications

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

Electrical Specifications (TA = +25°C, DC Voltage = 13Volts, DC Current = 3,000mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	2		4	GHz
Small Signal Gain	39			dB
Gain Flatness			±1.5	dB
Input Power			+10	dBm
Psat		+39		dBm
Output Power at 1 dB Compression Point	+37.8			dBm
Output 3rd Order Intercept Point		+48		dBm
Harmonics @6 Watts		-20		dBc
Spurious @6 Watts		-60		dBc
Input VSWR			2:1	
Operating DC Voltage		13		Volts
Operating DC Current			3,000	mA
Operating Temperature Range	0		+50	°C

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Pasternack Enterprises, Inc. • P.O. Box 16759, Irvine, CA 92623
Phone: (866) 727-8376 or (949) 261-1920 • **Fax:** (949) 261-7451
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Mechanical Specifications

Size	
Length	6.8 in [172.72 mm]
Width	2.7 in [68.58 mm]
Height	1 in [25.4 mm]
Weight	1 lbs [453.59 g]
Input Connector	SMA Female
Output Connector	SMA Female
Cooling	HEATSINK REQUIRED

Environmental Specifications

Temperature	
Operating Range	0 to +50 deg C
Humidity	95% Non-Condensing
Shock	Normal Truck Transport
Vibration	Normal Truck Transport
Altitude	10000 feet Above Sea Level

Compliance Certifications (visit www.Pasternack.com for current document)

Not RoHS Compliant

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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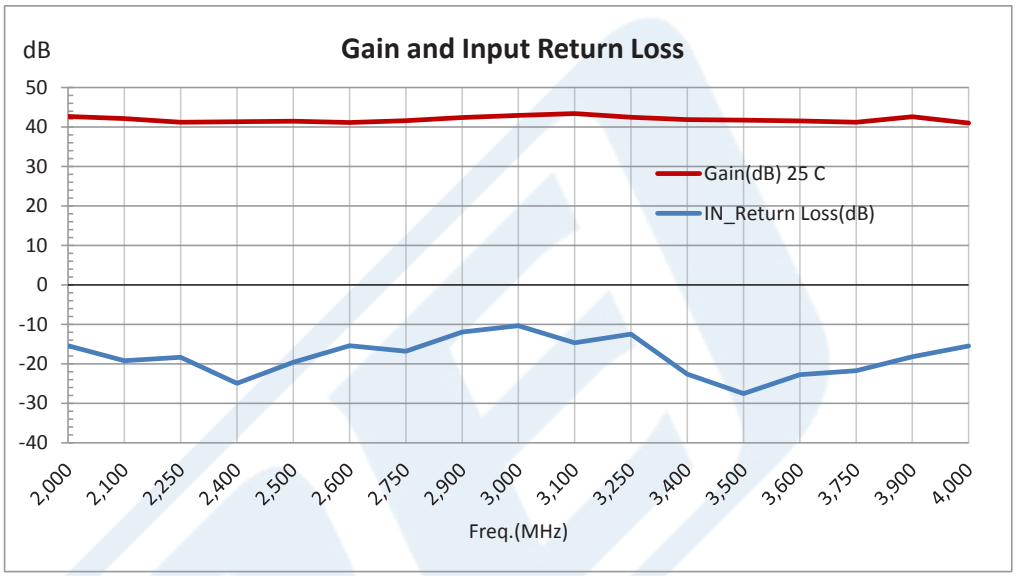
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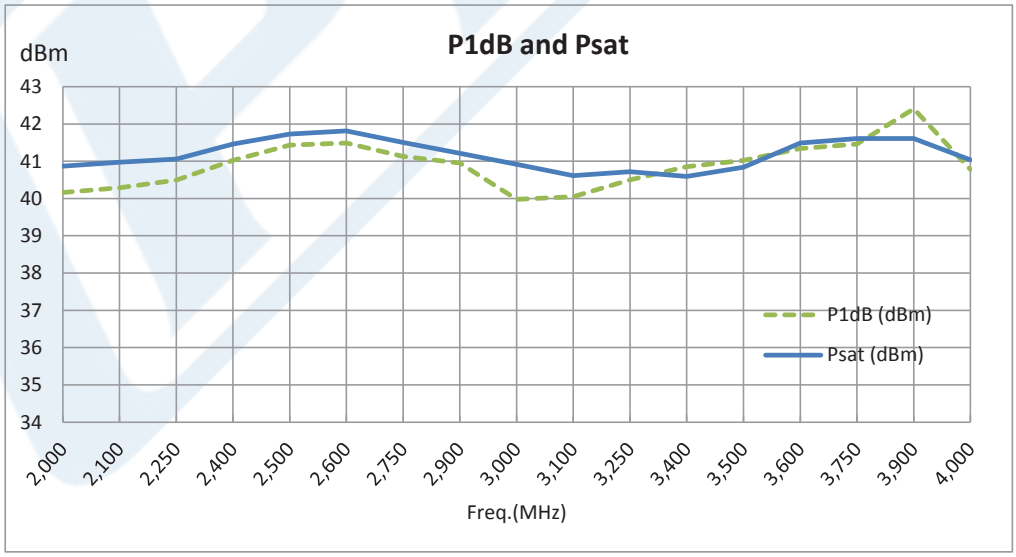


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Typical Performance Data





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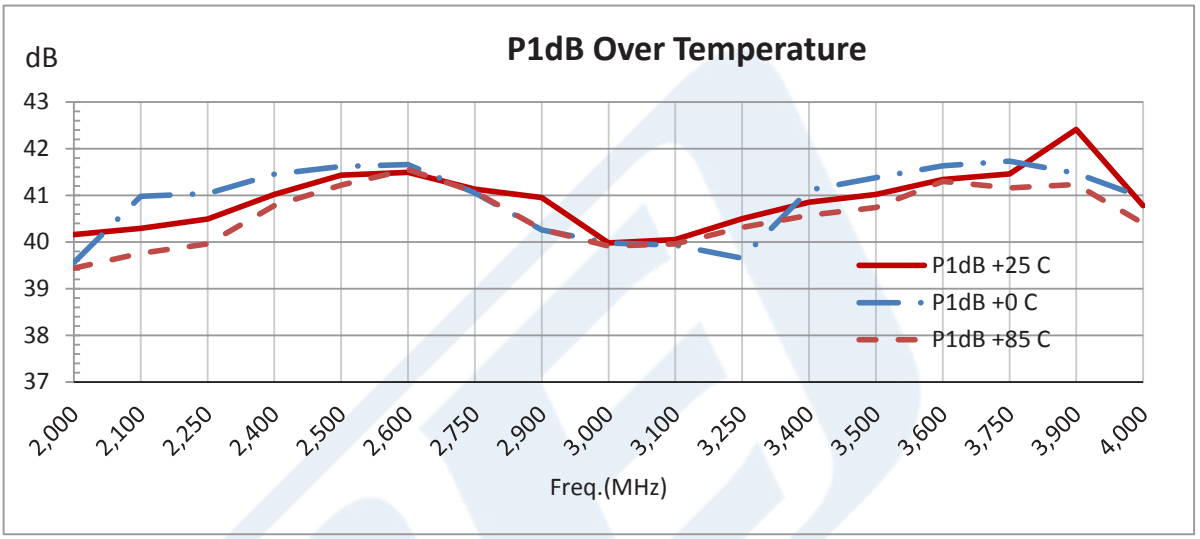
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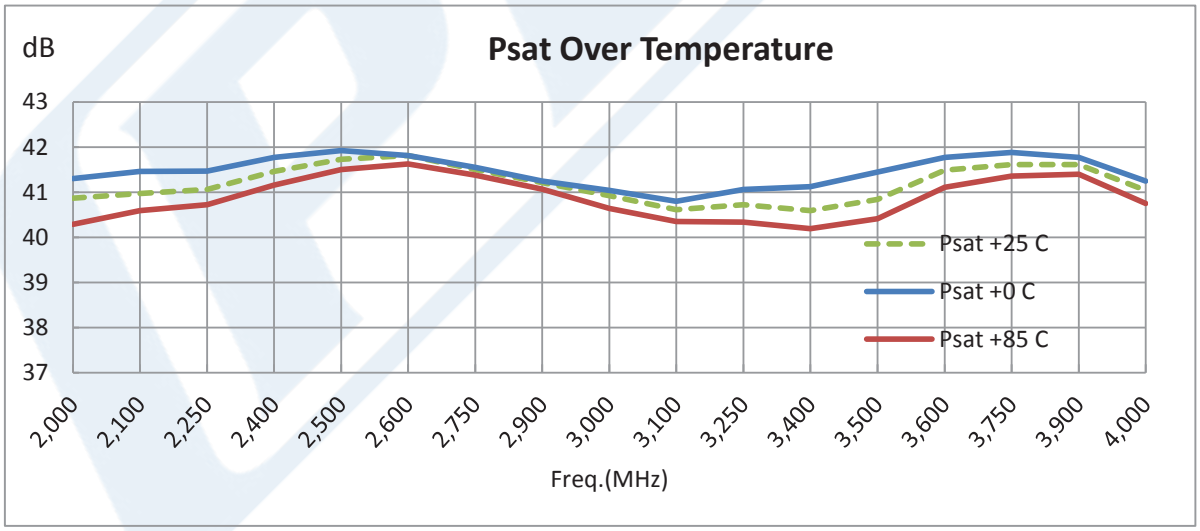
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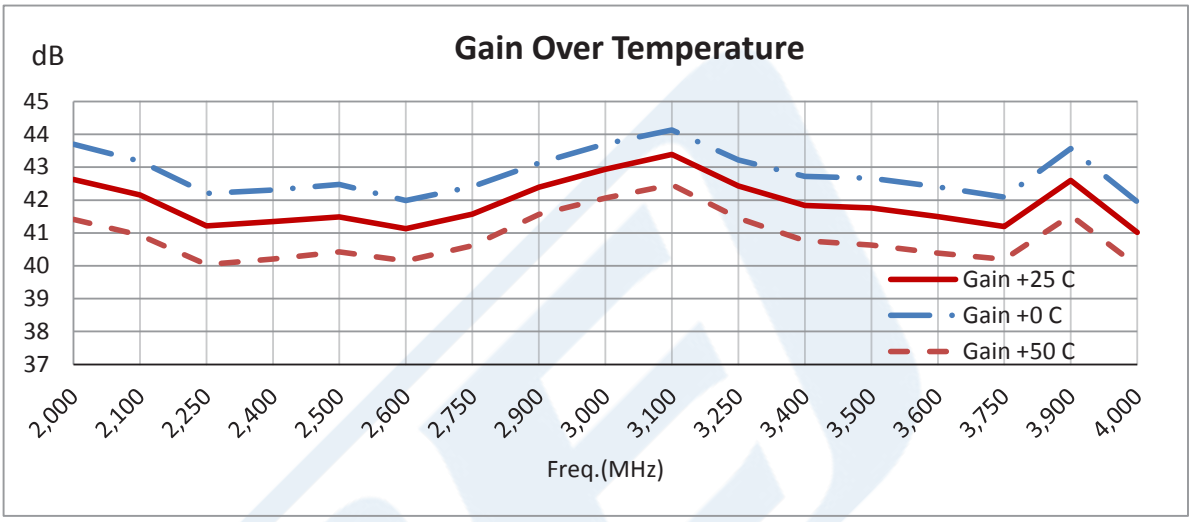
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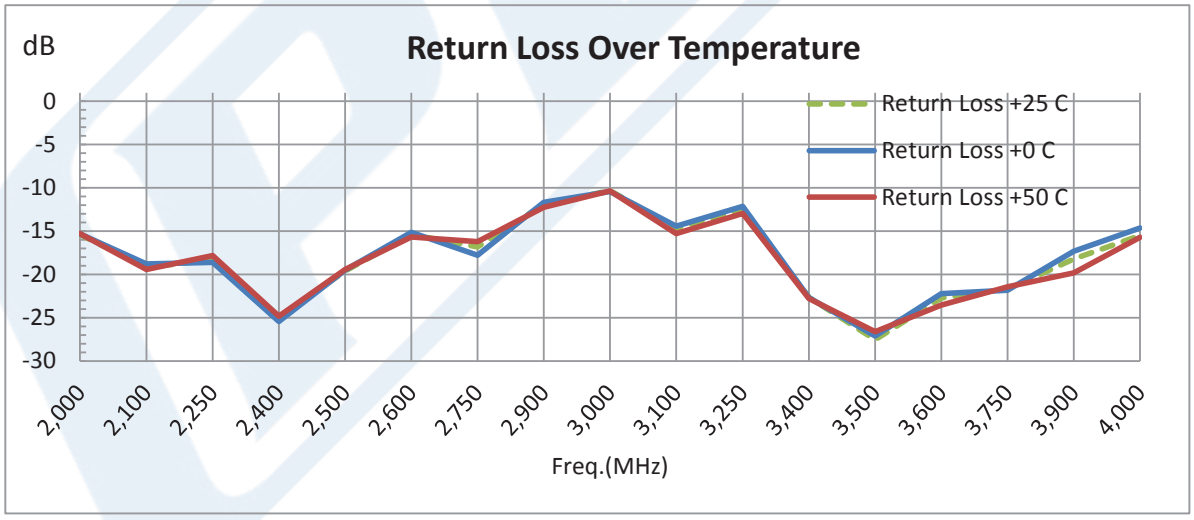
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URL: http://www.pasternack.com/4-ghz-high-power-amplifier-39-db-gain-ip3-sma-pe15a5038-p.aspx

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.

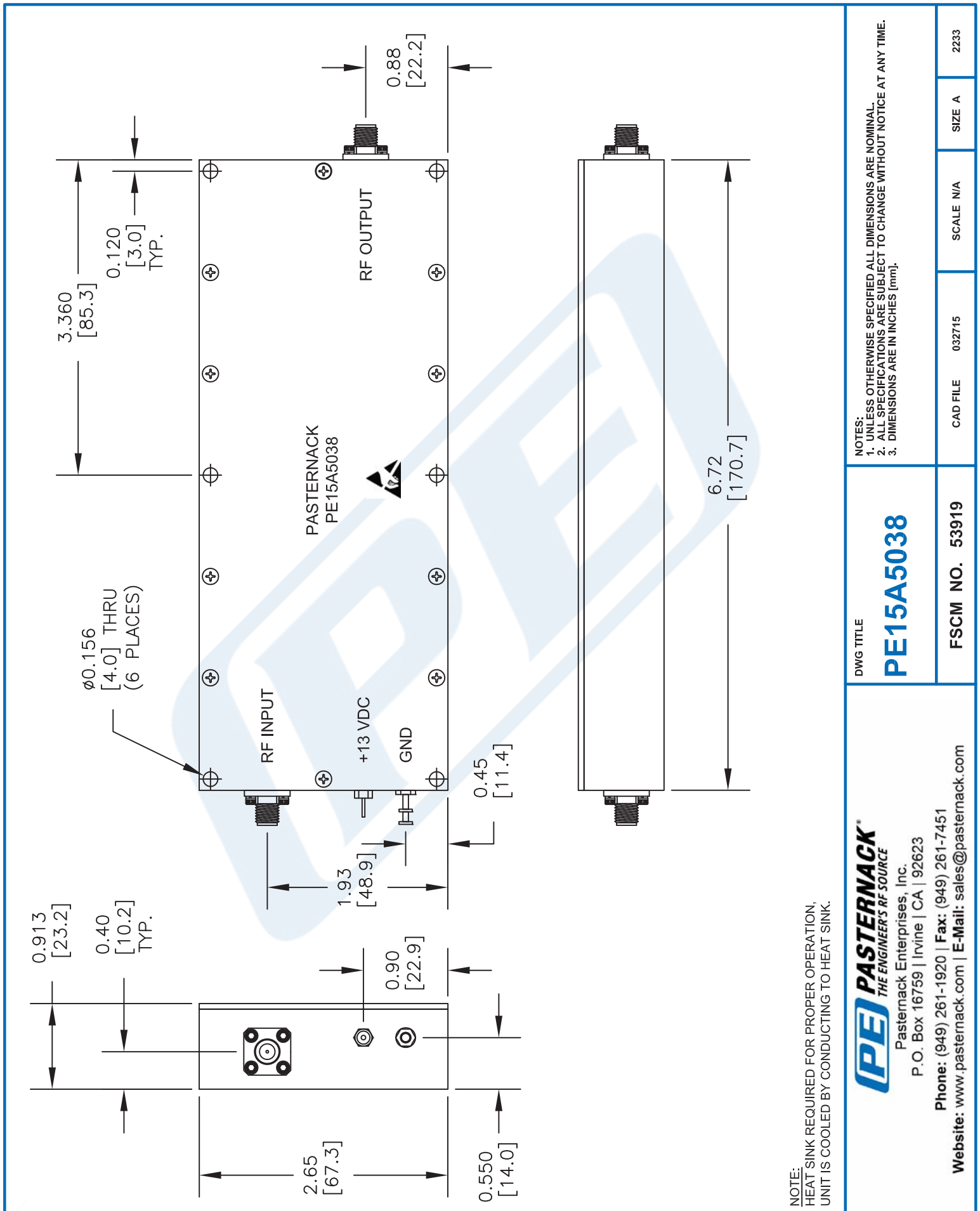
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PE15A5038 CAD Drawing

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