



46 dB Gain, 25 Watt Psat, 20 MHz to 1,000 MHz, High Power High Gain Amplifier, 48 dBm IP3, SMA

TECHNICAL DATA SHEET

PE15A5031

The PE15A5031 is a 25W high gain coaxial power amplifier operating in the 20 to 1000 MHz frequency range. The amplifier offers 25 Watts typical saturated power and 46 dB typical small signal gain with ± 1.5 dB maximum gain flatness. The amplifier requires typically a +28V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of 0°C and +50°C.

Features

- 20 MHz to 1000 MHz Frequency Range
- Psat 25 Watts typ
- Small Signal Gain: 46 dB min
- Gain Flatness ± 1.5 dB max
- IP3 48 dBm 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 = 28Volts, DC Current = 5,200mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	20		1,000	MHz
Small Signal Gain	46			dB
Gain Flatness			± 1.5	dB
Input Power			+0	dBm
Psat		+44		dBm
Output Power at 1 dB Compression Point	+40			dBm
Output 3rd Order Intercept Point		+48		dBm
Harmonics		-20		dBc
Spurious		-60		dBc
Input VSWR			2:1	
TTL Control		"1" = On; "0" = Off		
TTL Control Enable		5		Volts
TTL Control Disable		0		Volts
Operating DC Voltage		28		Volts
Operating DC Current			5,200	mA
Operating Temperature Range	0		+50	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [46 dB Gain, 25 Watt Psat, 20 MHz to 1,000 MHz, High Power High Gain Amplifier, 48 dBm IP3, SMA PE15A5031](#)



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Mechanical Specifications

Size

Length	6 in [152.4 mm]
Width	3 in [76.2 mm]
Height	1.1 in [27.94 mm]
Weight	1 lbs [453.59 g]
Input Connector	SMA Female
Output Connector	SMA Female
Cooling	ADEQUATE 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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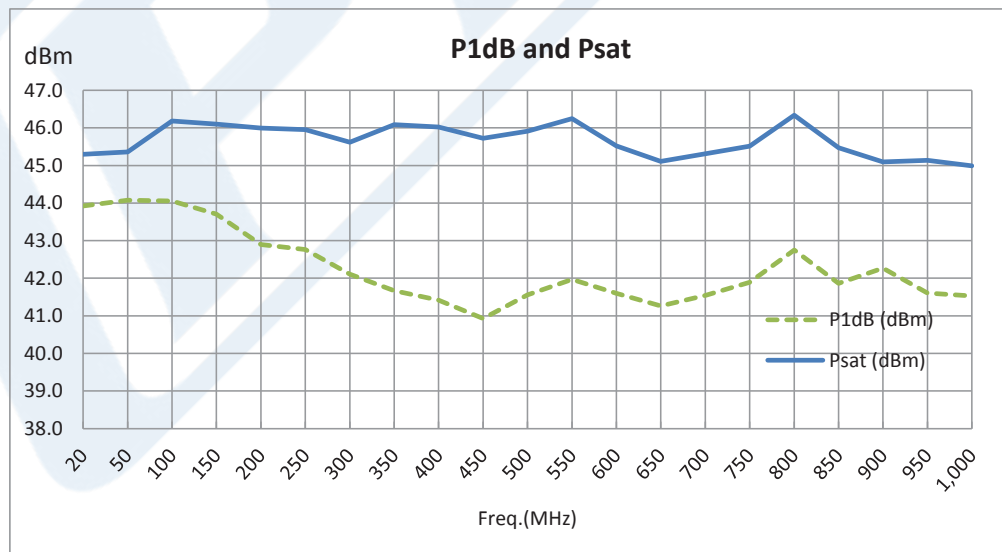
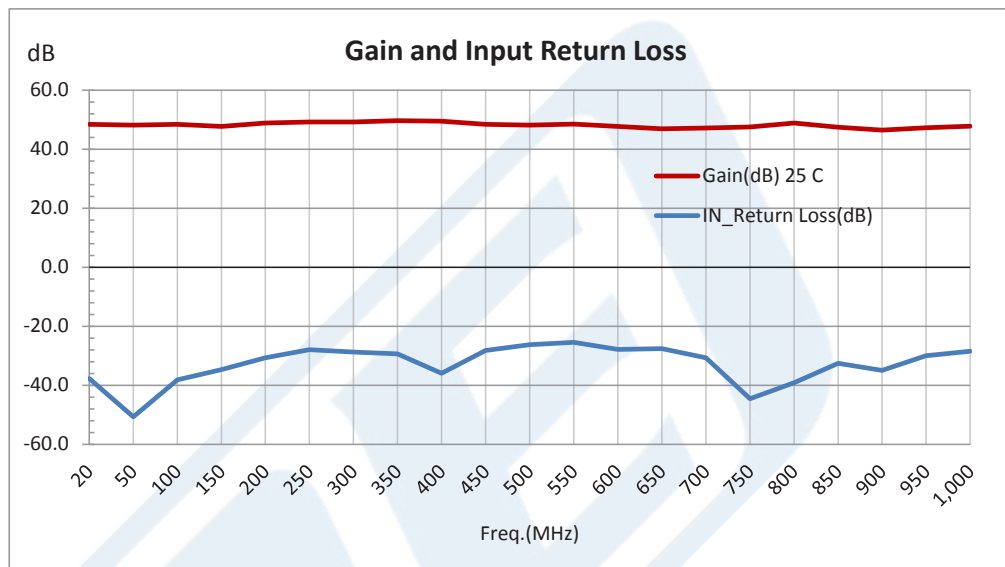


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Typical Performance Data



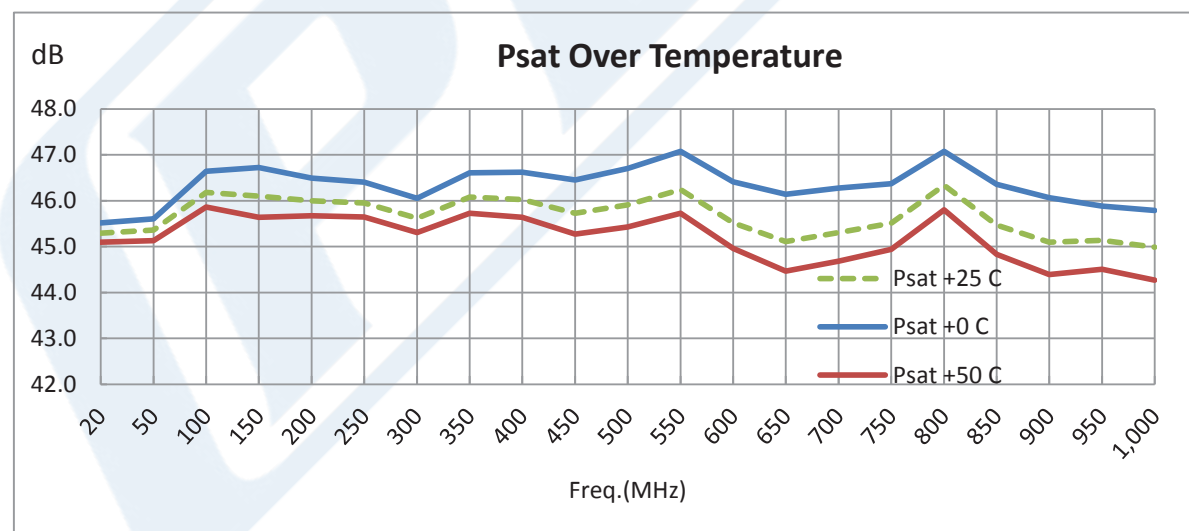
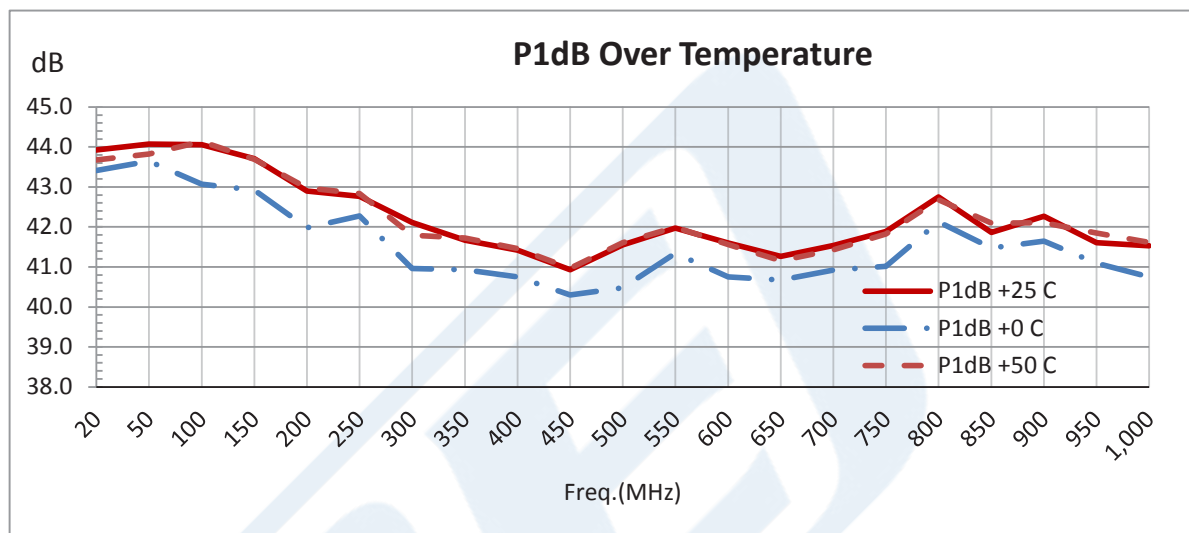
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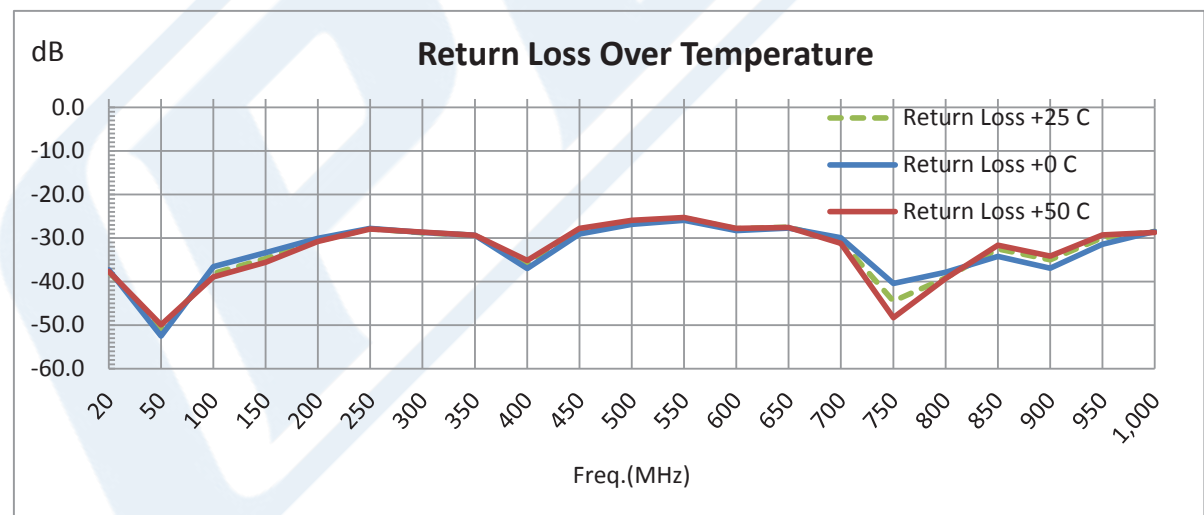
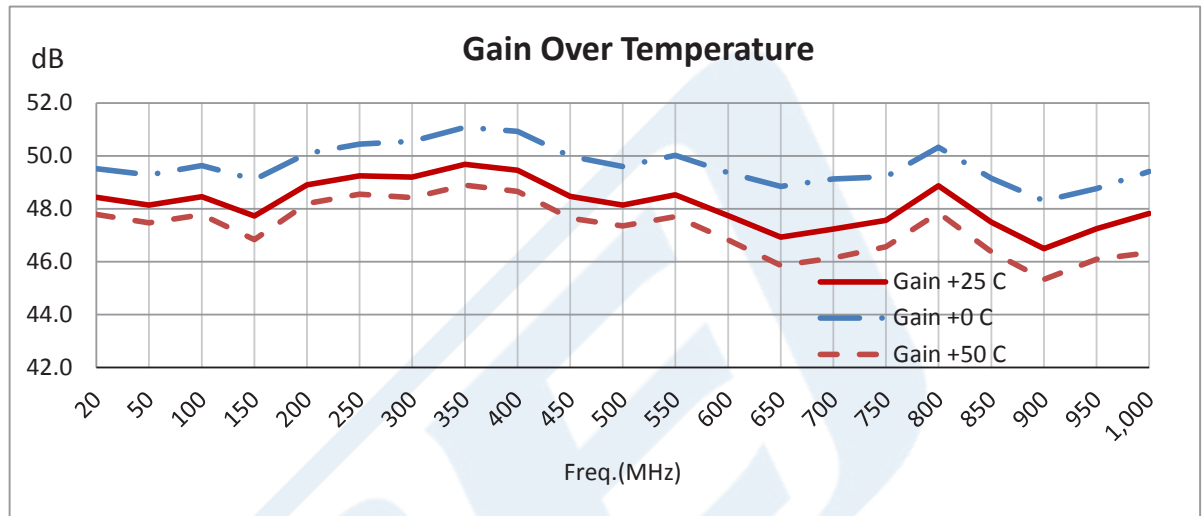
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46 dB Gain, 25 Watt Psat, 20 MHz to 1,000 MHz, High Power High Gain Amplifier, 48 dBm IP3, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

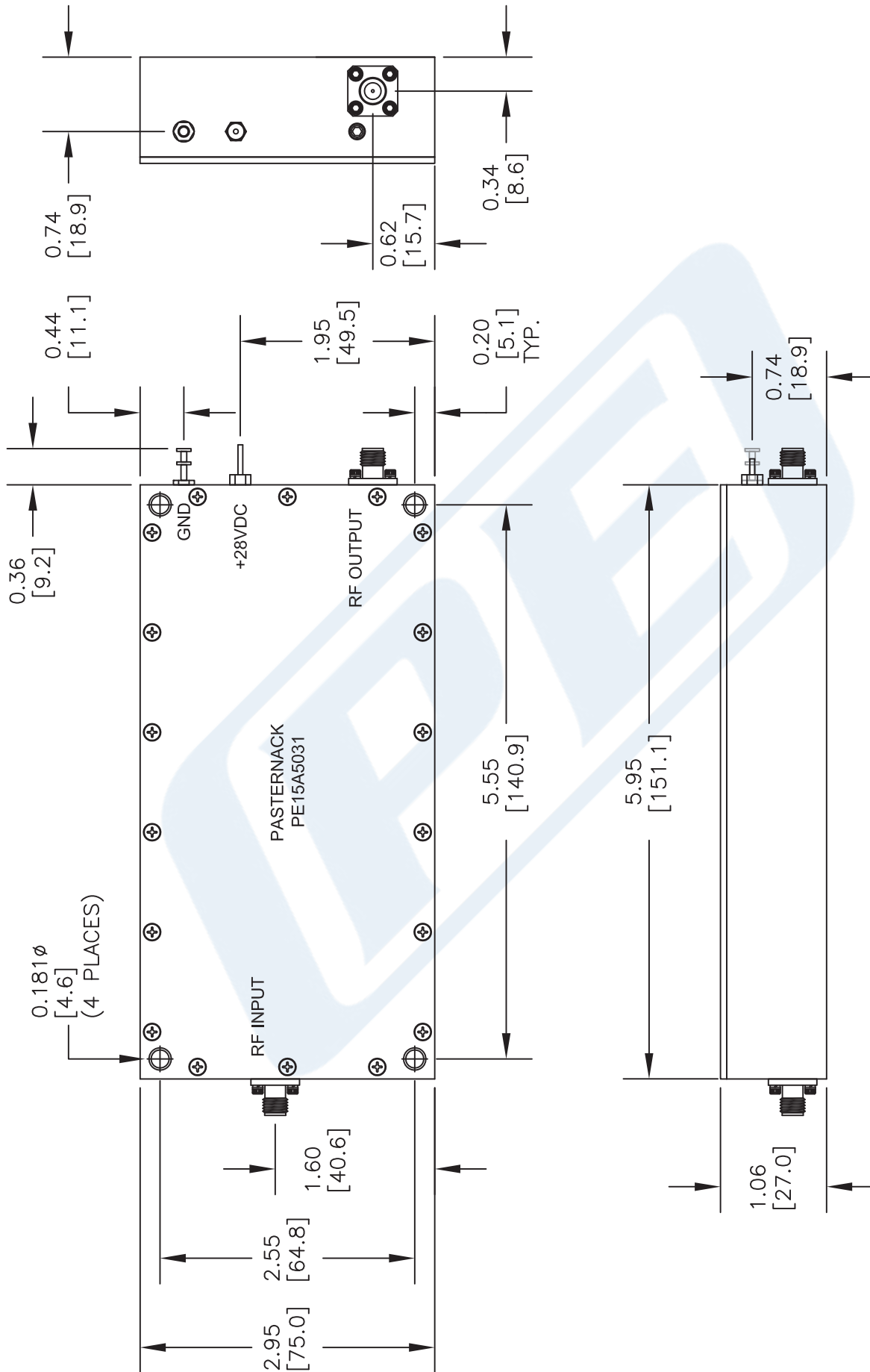
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

PE15A5031 CAD Drawing

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DWG TITLE

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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 031315

SCALE N/A

SIZE A

2233