



46 dB Gain, 600 mW, 1.2 GHz to 1.4 GHz, Medium Power High Gain Amplifier, 2 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4010

PE154010 is an L-band high gain driver coaxial amplifier operating in the 1.2 to 1.4 GHz frequency range. The amplifier offers 28 dBm min of saturated power and high 46 dB typical small signal gain with the excellent gain flatness of ± 0.5 dB maximum. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The driver amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -30°C and $+50^{\circ}\text{C}$.

Features

- 1.2 GHz to 1.4 GHz Frequency Range
- Saturated Power: 28 dBm typical
- Small Signal Gain: 46 dB typical
- Gain Flatness: ± 0.5 dB max
- Noise Figure: 2 dB
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- TTL Logic
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation Satellites
- Radar & Communication Systems
- High Gain Driver Amplifier

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 400mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	1.2		1.4	GHz
Small Signal Gain		46		dB
Gain Flatness			± 0.5	dB
Saturation Output Power		+28		dBm
Harmonics		-10		dBc
Noise Figure			2	dB
Input VSWR			2:1	
Output VSWR			2:1	
Switching Speed for On/Off Switch Gate			10	μsec
TTL Control		"1" = On; "0" = Off		
Operating DC Voltage		12	13	Volts
Operating DC Current		400		mA
Operating Temperature Range	-30		+50	$^{\circ}\text{C}$

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [46 dB Gain, 600 mW, 1.2 GHz to 1.4 GHz, Medium Power High Gain Amplifier, 2 dB NF, SMA PE15A4010](#)



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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +50	°C
Storage Temperature	-55 to +85	°C



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

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

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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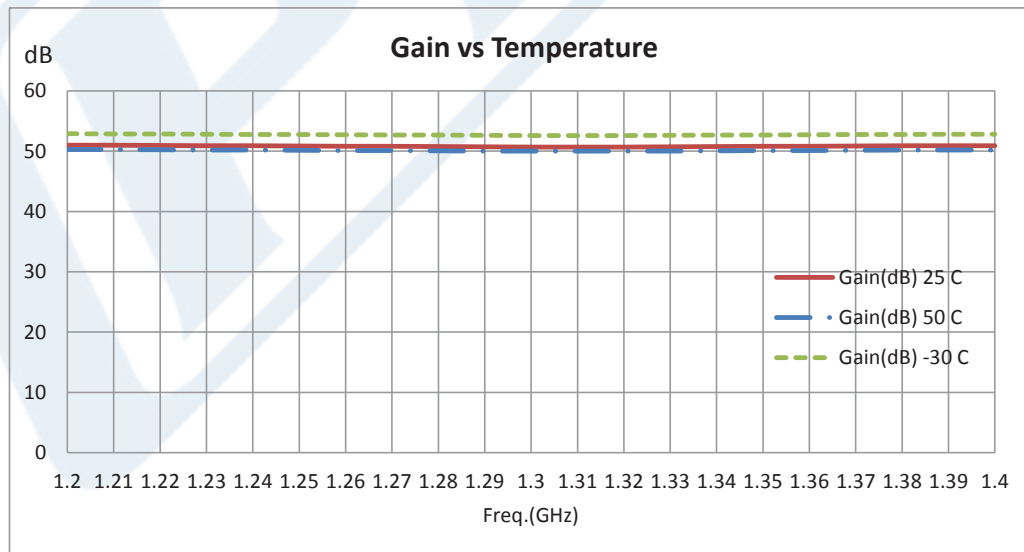
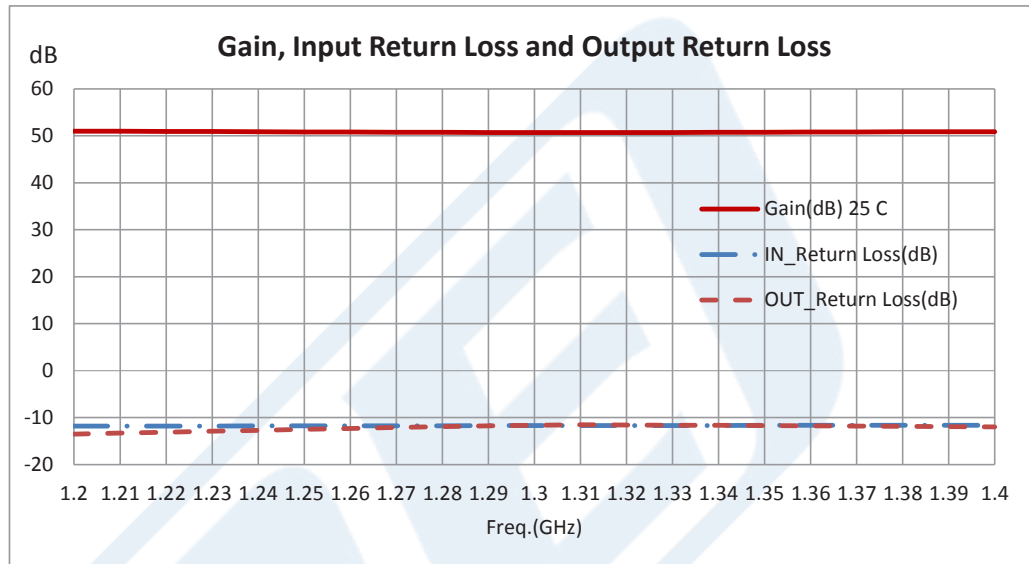




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Power Data



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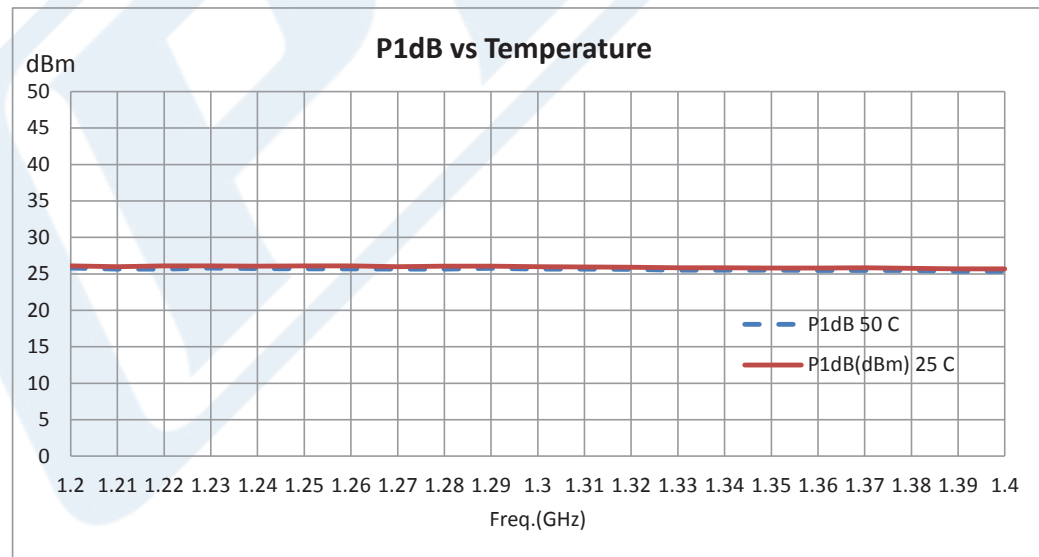
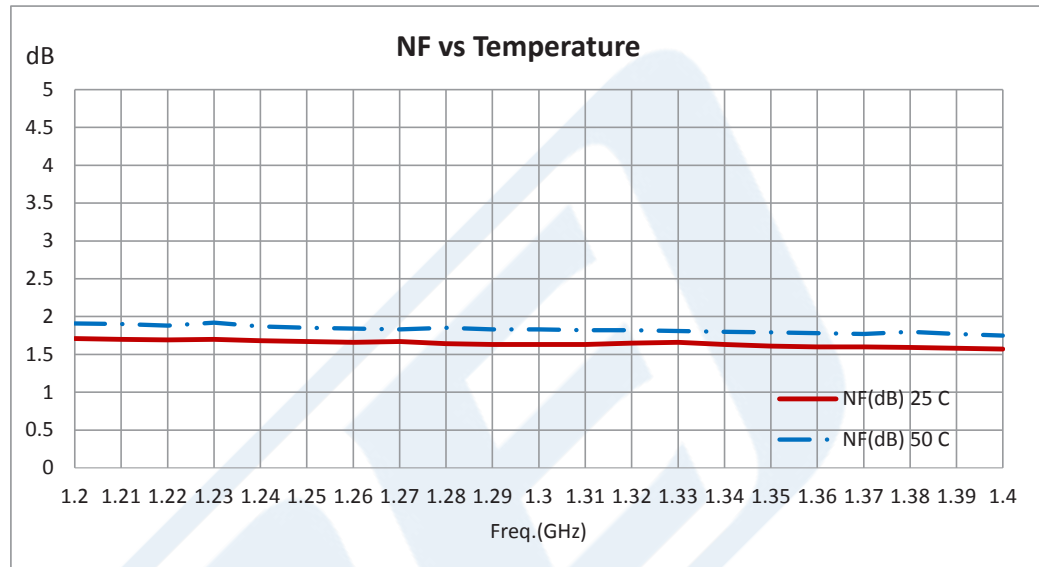




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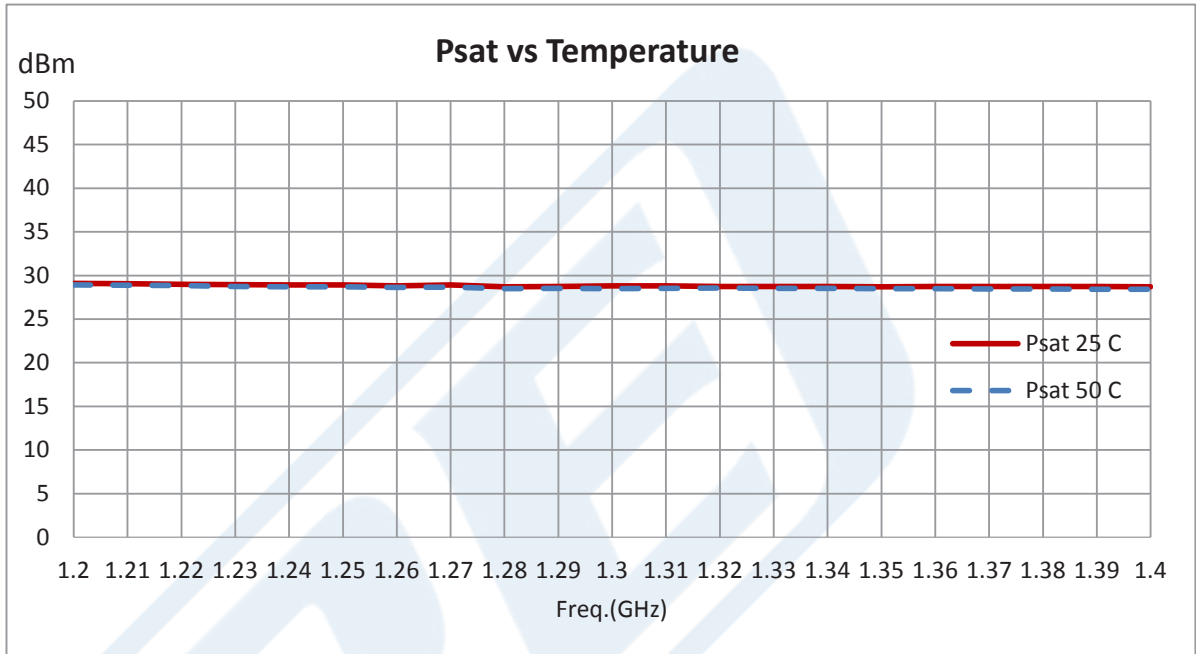
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46 dB Gain, 600 mW, 1.2 GHz to 1.4 GHz, Medium Power High Gain Amplifier, 2 dB NF, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

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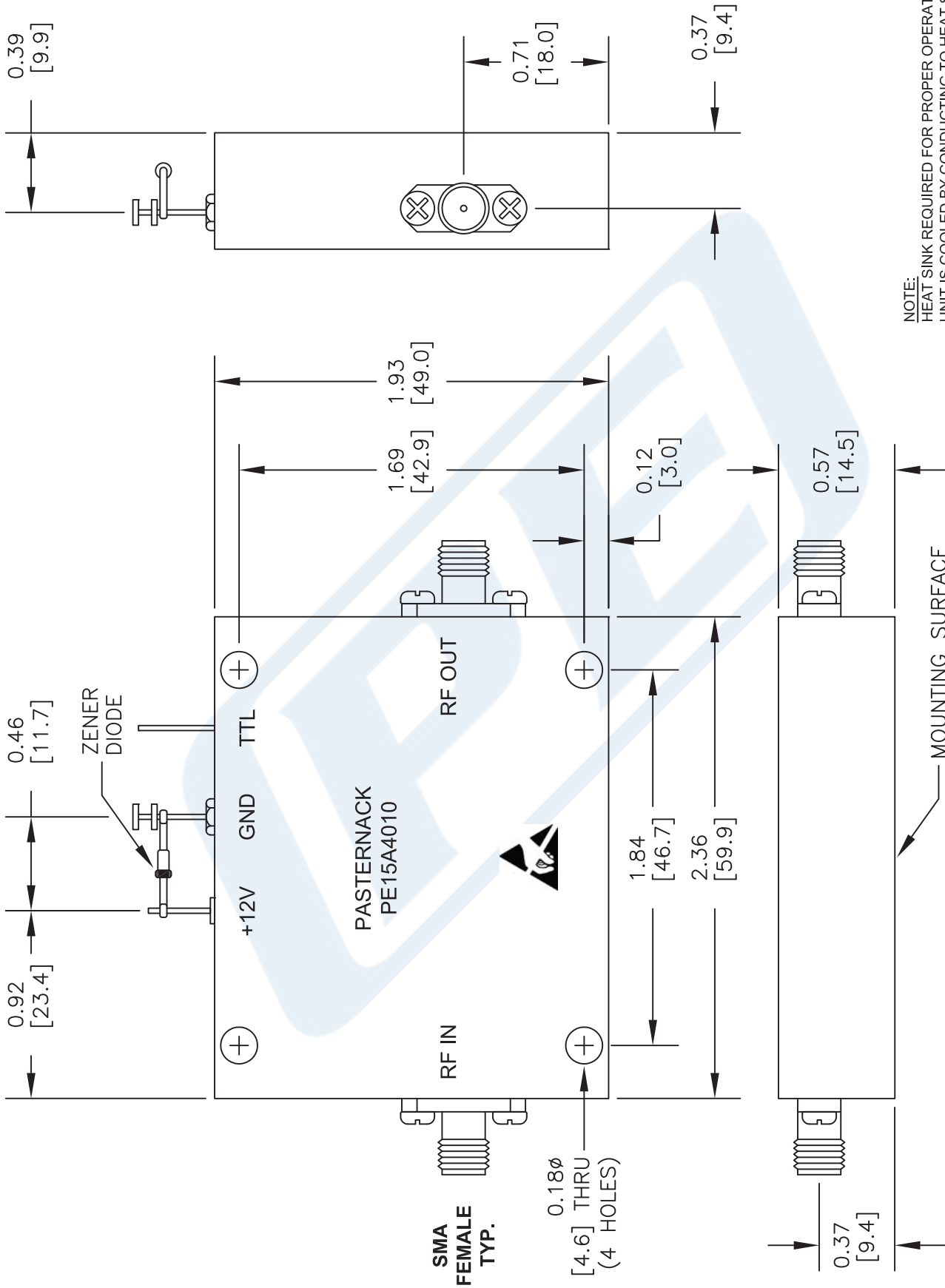
URL: <http://www.pasternack.com/46-db-gain-1.4-ghz-medium-power-high-gain-amplifier-sma-pe15a4010-p.aspx>

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PE15A4010 CAD Drawing

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DWG TITLE

PE15A4010

- 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].

(PE) PASTERNAK
 THE ENGINEER'S RF SOURCE
 Pasternack Enterprises, Inc.
 P.O. Box 16759 | Irvine | CA | 92623
 Phone: (949) 261-1920 | Fax: (949) 261-7451
 Website: www.pasternack.com | E-Mail: sales@pasternack.com

FSCM NO. 53919

CAD FILE 032414

SCALE N/A

SIZE A

2233