



2 Watt, 6 GHz to 12 GHz, Medium Power Broadband
Amplifier, 37 dB Gain, 42 dBm IP3, 6 dB NF, SMA

TECHNICAL DATA SHEET

PE15A4001

PE15A4001 is a 2W wideband coaxial power amplifier operating in the 6 to 12 GHz frequency range. The amplifier offers 33 dBm min of P1db and high 37 dB typical small signal gain with the excellent gain flatness of ± 1.5 dB max and an outstanding output IP3 performance of 42 dBm. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The 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 -55°C and +85°C.

Features

- 6 GHz to 12 GHz Frequency Range
- P1dB: 33 dBm min
- High Small Signal Gain: 37 dB typical
- Gain Flatness: ± 1.5 dB max
- High output IP3: 42 dBm
- Noise Figure: 6 dB typical
- Reverse Isolation: 50 dB
- 50 Ohms Input and Output Matched
- -55 to +85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications

- Electronic Warfare
- Electronic Countermeasures
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communication
- Microwave Radio Systems
- Driver Amplifier
- High Power Output Amplifier

Electrical Specifications (TA = +25°C, DC Voltage = 12Volts, DC Current = 2,500mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	6		12	GHz
Gain	35	37		dB
Small Signal Gain at OTR*	33			dB
Gain Flatness			± 1.5	dB
Output at 1 dB Compression Point	+33			dBm
Output at 1 dB Compression Point at OTR*	+32			dBm
Output 3 rd Intercept Point		+42		dBm
Reverse Isolation		50		dB
Noise Figure		6	6.5	dB
Noise Figure at OTR*			7	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage		12	15	Volts
Operating DC Current		2,500		mA
Operating Temperature Range (OTR)	-55		+85	°C

*OTR= Base Plate Operating Temperature Range

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [2 Watt, 6 GHz to 12 GHz, Medium Power Broadband Amplifier, 37 dB Gain, 42 dBm IP3, 6 dB NF, SMA PE15A4001](#)



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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+16	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-55 to +85	°C
Storage Temperature	-65 to +95	°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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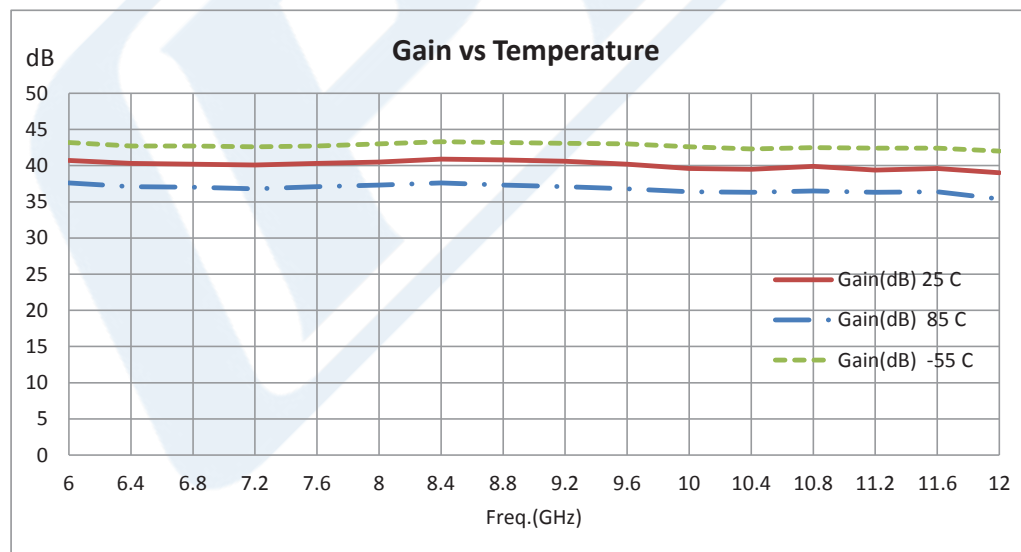
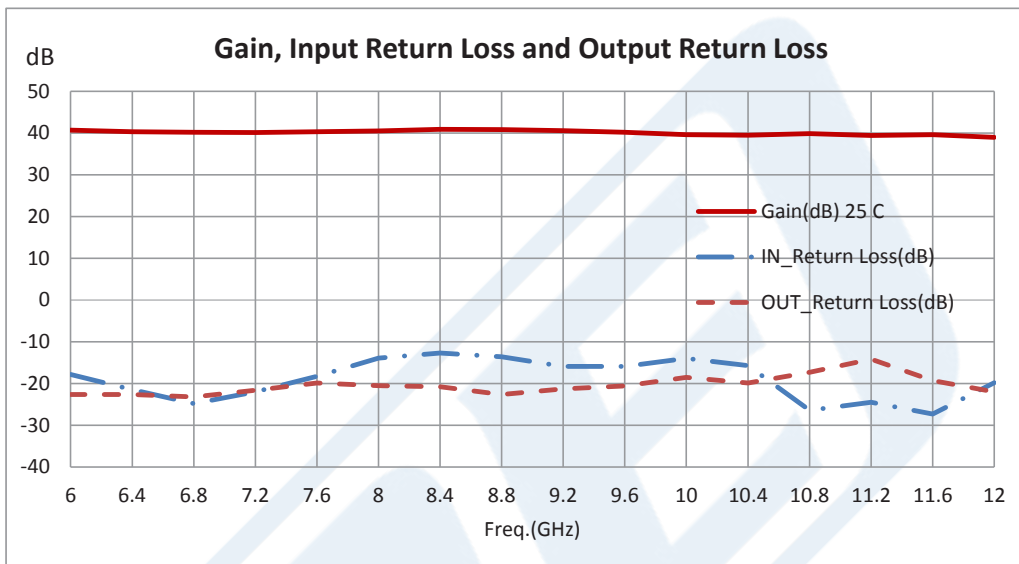


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Power Data



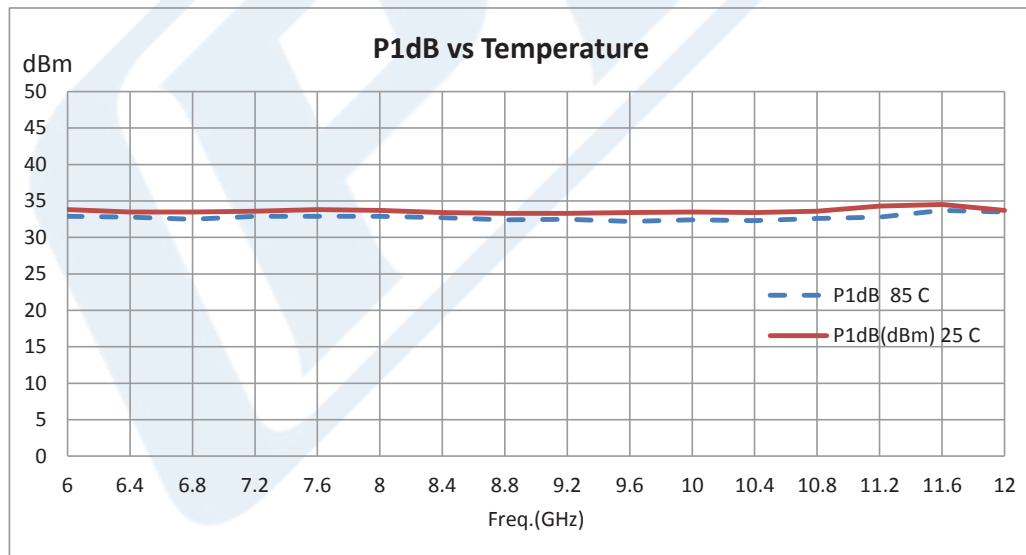
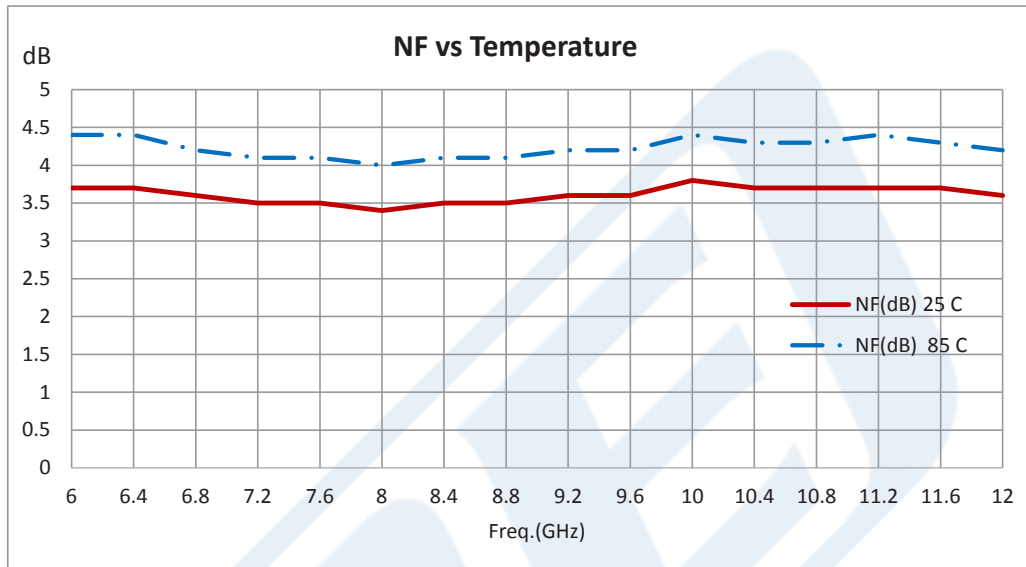
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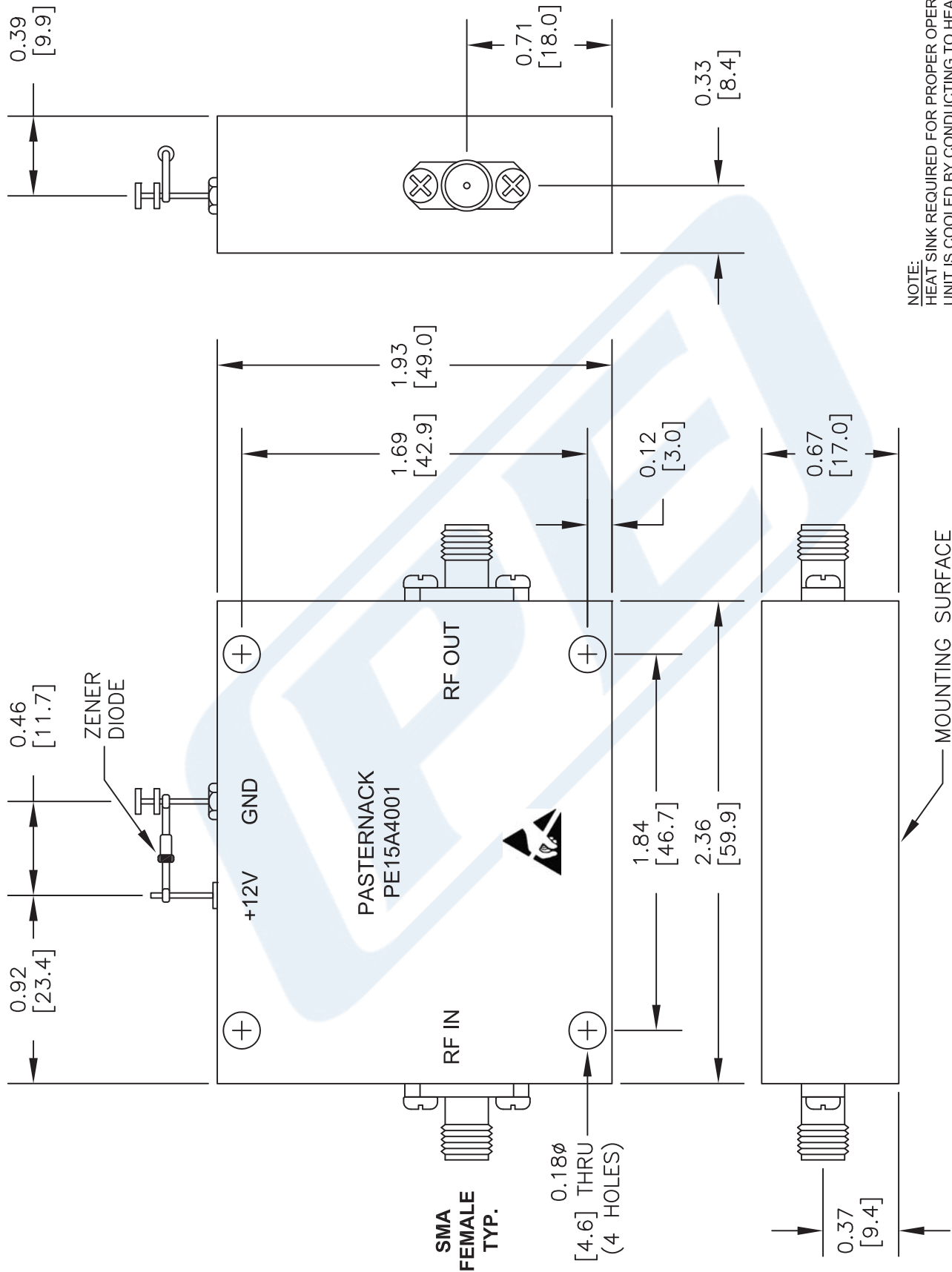
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PASTERNAK ENTERPRISES, INC.
UL
REGISTERED FIRM
CERTIFICATE NO. 1009457 Q4002
9001 • 2004

PE15A4001 CAD Drawing

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

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].

DWG TITLE

PE15A4001

PASTERNACK®
THE ENGINEER'S RF SOURCE

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FSCM NO. 53919

CAD FILE 032414

SCALE N/A

SIZE A

2233