



42 dB Gain, 18 Watt Psat, 860 MHz to 960 MHz, High Power High Gain Amplifier, 55 dBm IP3, 3.5 dB NF, SMA

TECHNICAL DATA SHEET

PE15A5042

The PE15A5042 is a 10 W minimum high gain power coaxial amplifier operating in the 860 to 960 MHz frequency range. The amplifier offers 10 Watts min of P1dB power and a high 42 dB typical small signal gain with the gain flatness of ± 1.5 dB max. The amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and operates over the temperature range of -30°C and +70°C.

Features

- 860 to 960 MHz Frequency Range
- P1dB 10 Watts min
- Small Signal Gain: 42 dB typ
- Gain Flatness ± 1.5 dB max
- 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 = 2,800mA)

Description	Minimum	Typical	Maximum	Units
Frequency Range	860		960	MHz
Small Signal Gain	39	42	45	dB
Gain Flatness		± 1	± 1.5	dB
Gain Variation at OTR*		± 2		dB
Psat		+42.5		dBm
Output Power at 1 dB Compression Point	+40	+41		dBm
Output 3rd Intercept Point	+50	+55		dBm
Reverse Isolation	50	60		dB
Noise Figure		3.5	4.5	dB
Spurious			-60	dBc
Input VSWR		1.5:1	2:1	
Output VSWR		1.5:1	2:1	
Operating DC Voltage	11.5	12	12.5	Volts
Operating DC Current	2,200	2,800	3,300	mA
Quiescent Current	1,000	1,300	1,600	mA
Operating Temperature Range	-30		+70	°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: [42 dB Gain, 18 Watt Psat, 860 MHz to 960 MHz, High Power High Gain Amplifier, 55 dBm IP3, 3.5 dB NF, SMA PE15A5042](#)



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Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+13	Volts
RF input Power	+15	dBm
Storage Temperature	-40 to +125	°C
Operating Temperature	-30 to +65	°C



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

Mechanical Specifications

Size

Length	3.54 in [89.92 mm]
Width	1.75 in [44.45 mm]
Height	0.55 in [13.97 mm]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature

Operating Range	-30 to +70 deg C
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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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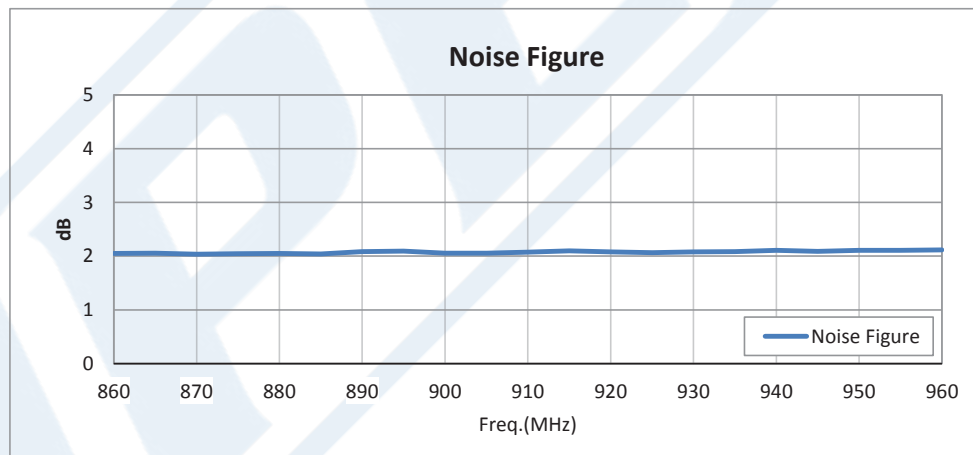
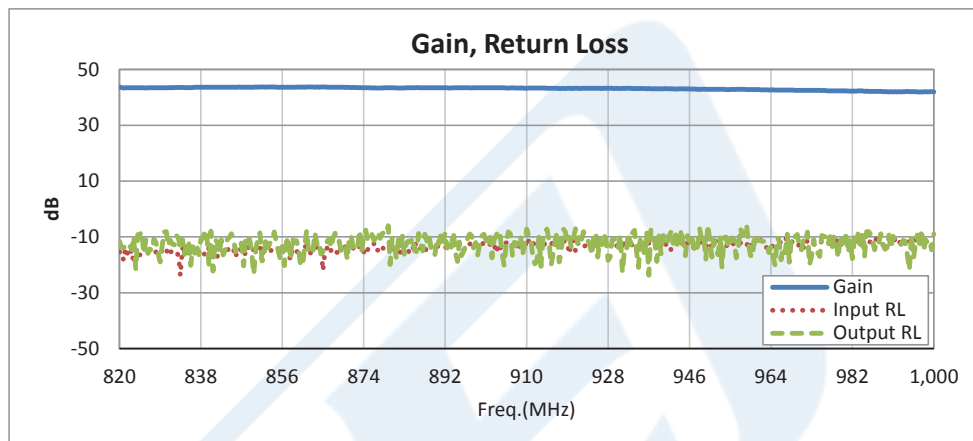


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Typical Performance Data



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42 dB Gain, 18 Watt Psat, 860 MHz to 960 MHz, High Power High Gain Amplifier, 55 dBm IP3, 3.5 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.

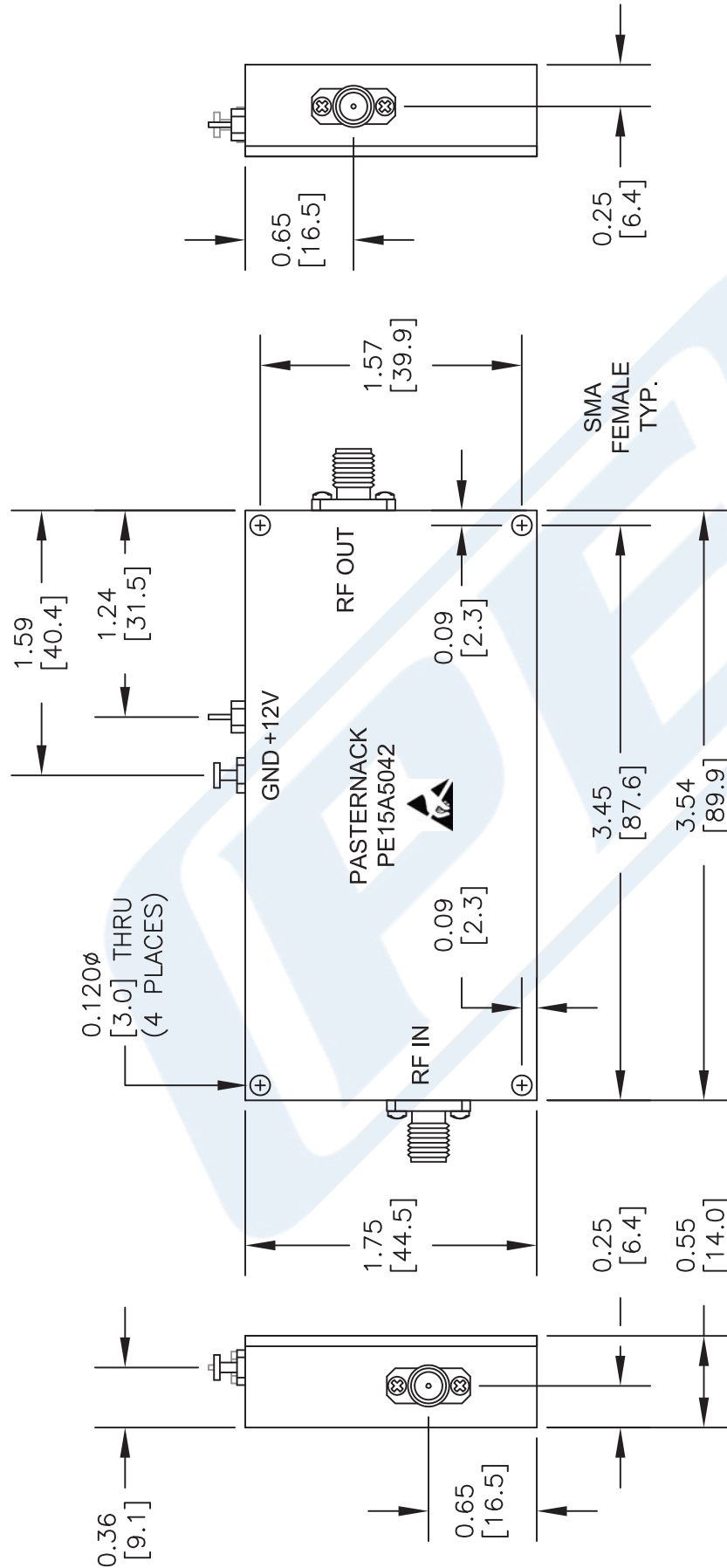
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PE15A5042 CAD Drawing

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High Gain Amplifier, 55 dBm IP3, 3.5 dB NF, SMA



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

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

DWG TITLE
PE15A5042

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 070615

SCALE N/A

SIZE A

2233