



2.5 dB NF, 16 dBm, 0.009 MHz to 3 GHz,
Noise Amplifier, 32 dB Gain, SMA

PE15A1007 is a wideband low noise RF coaxial amplifier operating from 0.009 MHz to 3 GHz. With a 2.5 dB noise figure, 16 dBm of P1dB and high 32 dB minimum gain, exceptional technical performance is achieved through the use of GaAs technology. The low noise amplifier requires typically a +12V DC power supply and includes built-in voltage regulation. This low noise amplifier is rugged and operates over the temperature range of -40°C and +85°C.

Features

- 9 kHz to 3 GHz Frequency Range
- P1dB: 16 dBm
- High Small Signal Gain: 32 dB
- Gain Flatness: ±1.25 dB
- Gain Variance: ±1 dB
- Noise Figure: 2.5 dB
- Reverse Isolation: 65 dB
- 50 Ohm Input and Output Match
- 40 to 85°C Operating Temperature
- Unconditionally Stable
- Single DC Positive Supply
- Built-in Voltage Regulator

Applications

- Laboratory Applications
- R&D Labs
- Military Radio
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Wireless Communication
- Microwave Radio Systems
- Cellular Base Stations
- Low Noise Amplifier
- General Amplification
- General Purpose Wireless
- Wideband Gain Block
- Amplifier/RF Driver
- RF Front End
- RF Pre-amplification

Electrical Specifications: DC Voltage = 12 Volts, DC Current = 110 mA

| Description | Minimum | Typical | Maximum | Units |
|----------------------------------|---------|---------|---------|-------|
| Frequency Range | 0 | | 3 | GHz |
| Small Signal Gain | 32 | | 36 | dB |
| Gain Flatness | | ±1.25 | ±1.5 | dB |
| Gain Variance at OTR* | | ±1 | | dB |
| Output at 1 dB Compression Point | | +16 | | dBm |
| Noise Figure | | 2.5 | 3 | dB |
| Input VSWR | | 1.6:1 | 2:1 | |
| Output VSWR | | 1.8:1 | 2.5:1 | |
| Reverse Isolation | 60 | 65 | | dB |
| Spurious | | | -60 | dBc |
| Operating DC Voltage | | 12 | | Volts |
| Operating DC Current | 90 | 110 | 130 | mA |
| Operating Temperature Range | | | +75 | °C |

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* OTR= Base Plate Operating Temperature Range

Absolute Maximum Rating

| Parameter | Rating | Units |
|------------------------------------|-------------|-------|
| Source Voltage | +15 | Volts |
| RF input Power | +5 | dBm |
| Operating Temperature (base-plate) | -55 to +125 | °C |
| Storage Temperature | -40 to +85 | °C |



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

Compliance Certificate available at www.pasternack.com for current documents
RoHS Compliant

Plotted and Other Data

Notes:

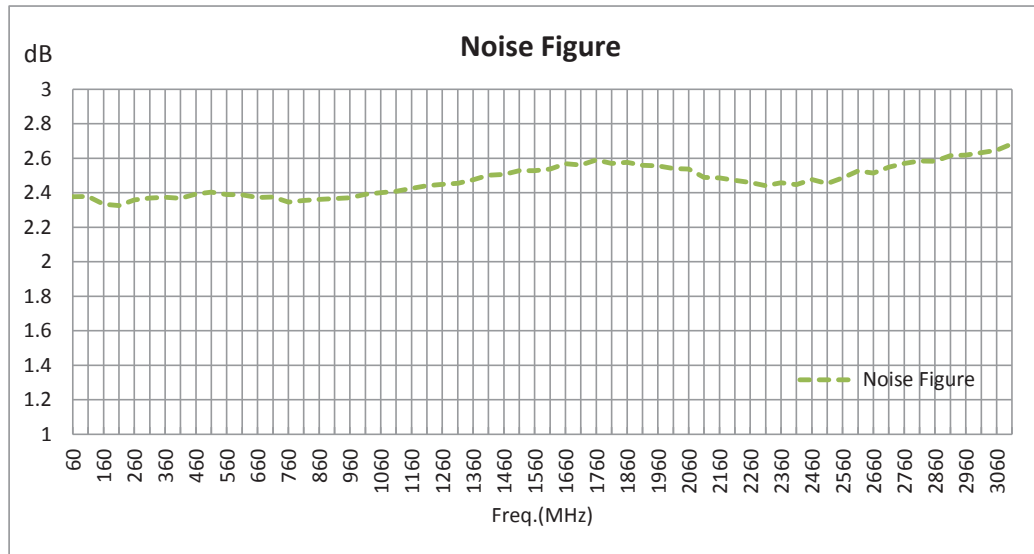
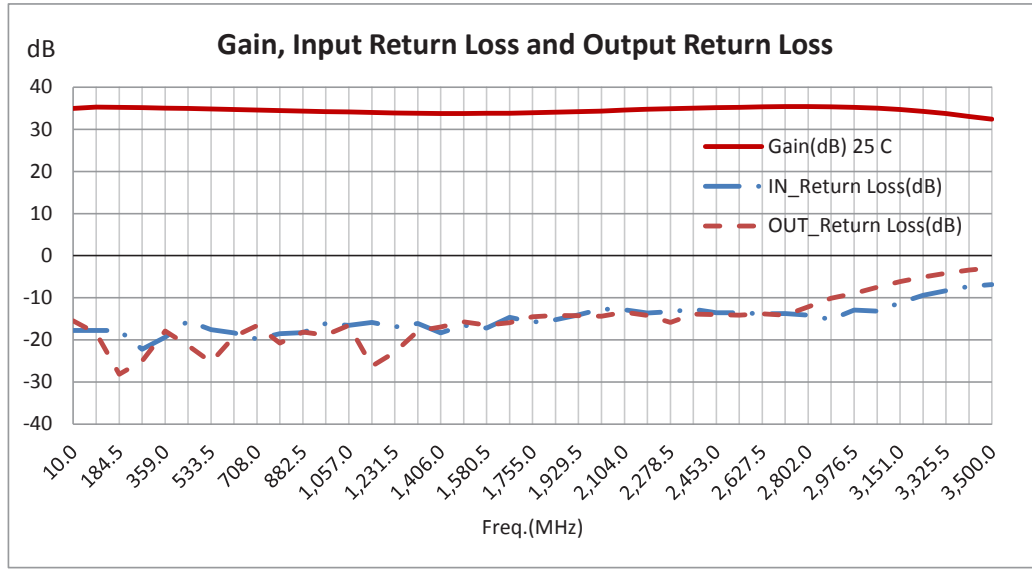
- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags.

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Power Data



Click the following link (or enter part number in "SEARCH" field) to view the product page and check inventory: [PE15A1007](#)



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2.5 dB NF, 16 dBm, 0.009 MHz to 3 GHz, Low Noise Amplifier,
shipment for domestic and International orders. Our RF, microwave
and are part of the broadest selection in the industry.

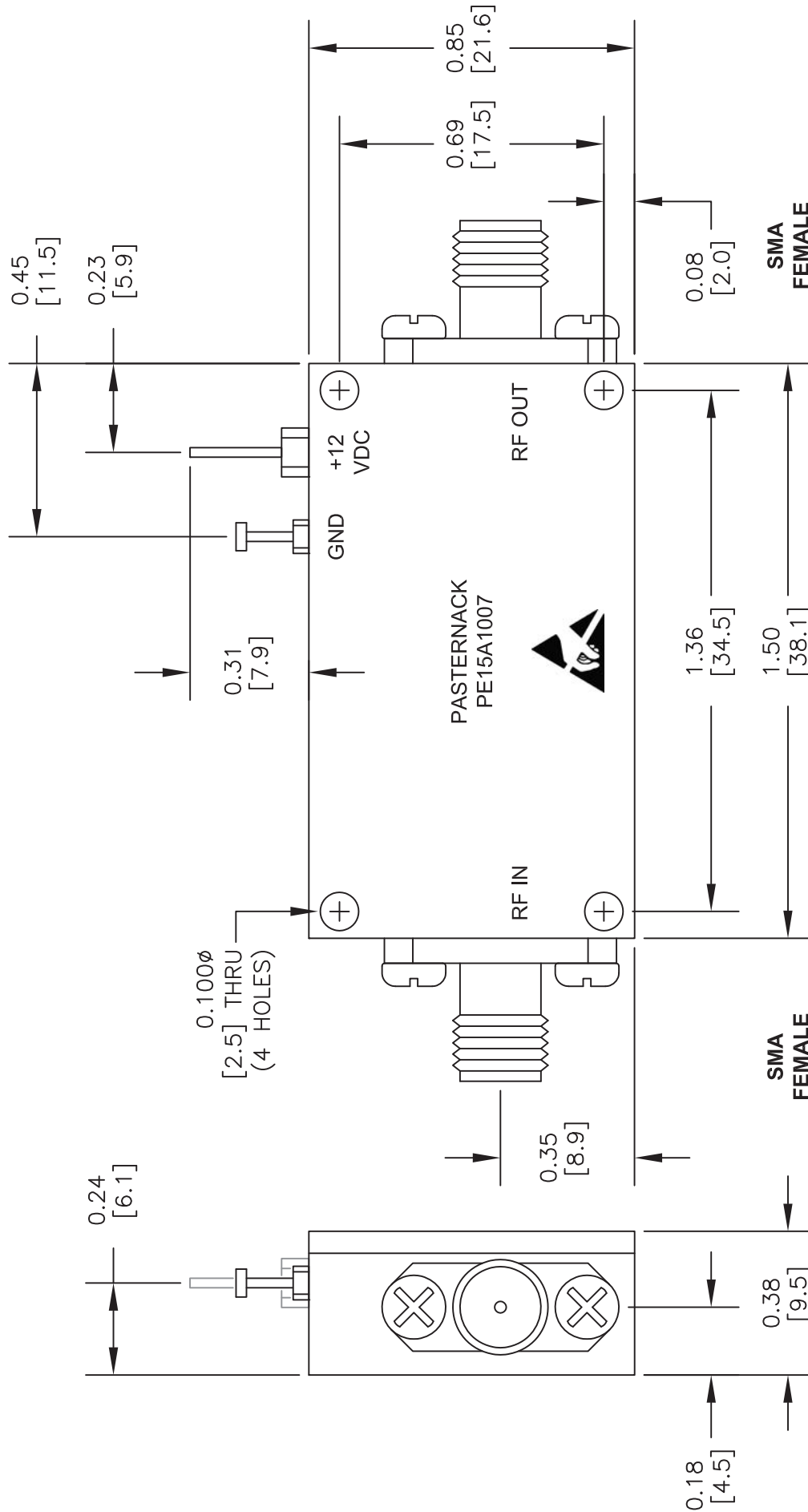
Click the following link (or enter part number in "SEARCH"
inventory and 2.5 dB NF, 16 dBm, 0.009 MHz to 3 GHz PE15A1007w Noise

URL: <http://www.pasternack.com/2.5-db-3-ghz-low-noise-amplifier>

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.

PE15A1007 CAD Drawing

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DWG TITLE

PE15A1007

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 021714

SCALE N/A

SIZE A

2233



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