



## 6 Watt P1dB, 800 MHz to 960 MHz, High Power Amplifier, 30 dB Gain, 50 dBm IP3, 3 dB NF, SMA

The PE15A5040 is a 6 W typical high gain power coaxial amplifier. The amplifier offers 6 Watts typ of P1dB power and a high 30 dB typical s max. The amplifier requires typically a +12V DC power supply. The conn operates over the temperature range of -40°C and +65°C

### Features

- 800 to 960 MHz Frequency Range
- Psat 6 Watts typ
- Small Signal Gain: 30 dB typ
- Gain Flatness ±1.25 dB max
- 50 Ohms Input and Output Match
- Unconditionally Stable
- Regulated Supply

### Applications

- Military Radio
- Communication System
- High Gain Driver Amplifier
- High Gain Output Amplifier

Electrical Specifications (V<sub>DC</sub> = +12 Volts, I<sub>DC</sub> = 1,800 mA)

| Description                            | Minimum | Typical | Maximum | Units |
|--|---------|---------|---------|-------|
| Frequency Range                        | 800     |         | 960     | MHz   |
| Small Signal Gain                      | 28      | 30      | 33      | dB    |
| Gain Flatness                          |         | ±1      | ±1.25   | dB    |
| Gain Variation at OTR*                 |         | ±1.5    | 2       | dB    |
| Output Power at 1 dB Compression Point |         | +38     |         | dBm   |
| Output 3rd Intercept Point             |         | +50     |         | dBm   |
| Reverse Isolation                      | 45      | 55      |         | dB    |
| Noise Figure                           |         | 3       | 4       | dB    |
| Spurious                               |         |         | -60     | dBc   |
| Input VSWR                             |         | 1.5:1   | 1.8:1   |       |
| Output VSWR                            |         | 1.5:1   | 1.8:1   |       |
| Operating DC Voltage                   | 11.5    | 12      | 13      | Volts |
| Operating DC Current                   |         | 1,800   | 2,100   | mA    |
| Operating Temperature Range            | -40     |         | +65     | °C    |

\* OTR = Base Plate Operating Temperature Range

Click the following link (or enter part number in "SEARCH" on website inventory and [6 Watt P1dB, 800 MHz to 960 MHz, High Power Amplifier SMA PE15A5040](#)



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**Absolute Maximum Rating**

| Parameter             | Rating      | Units |
|-----------------------|-------------|-------|
| Source Voltage        | +13         | Volts |
| RF input Power        | +15         | dBm   |
| Maximum Load VSWR     | 3           | Volts |
| Storage Temperature   | -55 to +125 | °C    |
| Operating Temperature | -45 to +65  | °C    |



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

**PHYSICAL**

**Size**

|                  |                    |
|------------------|--------------------|
| Length           | 2.08 in [52.83 mm] |
| Width            | 1.45 in [36.83 mm] |
| Height           | 0.5 in [12.7 mm]   |
| Input Connector  | SMA female         |
| Output Connector | SMA female         |

**Environmental Specifications**

**Temperature**

|                 |                  |
|-----------------|------------------|
| Operating Range | -40 to +65 deg C |
|-----------------|------------------|

Compliance Cert (iv) sat [www.pasternack.com](http://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
- Heat Sink Required for Proper Operation, Unit is cooled by conduction



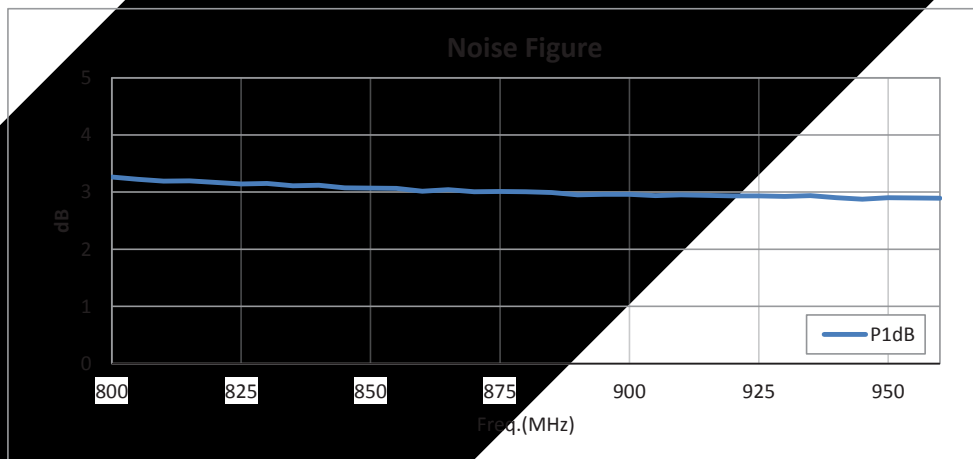
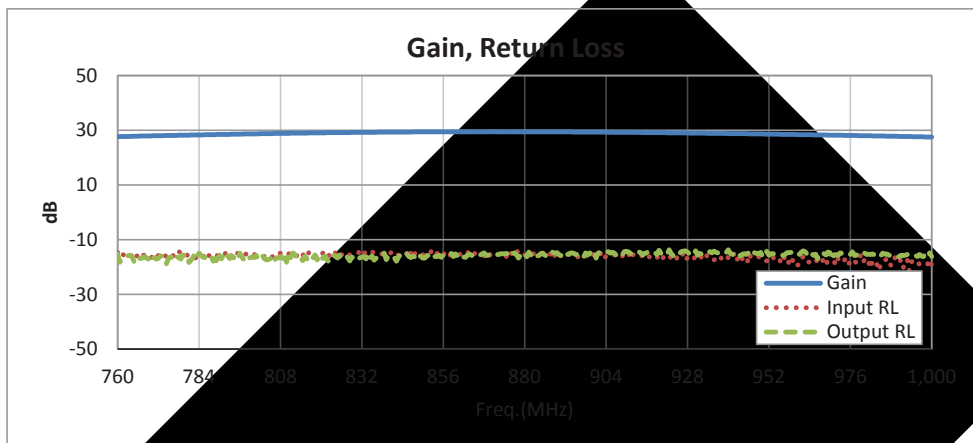
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Typical Performance Data



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6 Watt P1dB, 800 MHz to 960 MHz, High Power Amplifier, 30 dB Gain, 50 dBm IP3, 3 dB NF, SMA has same day shipment for domestic and international orders. Our R 99% availability and are part of the broadest selection in the industry.

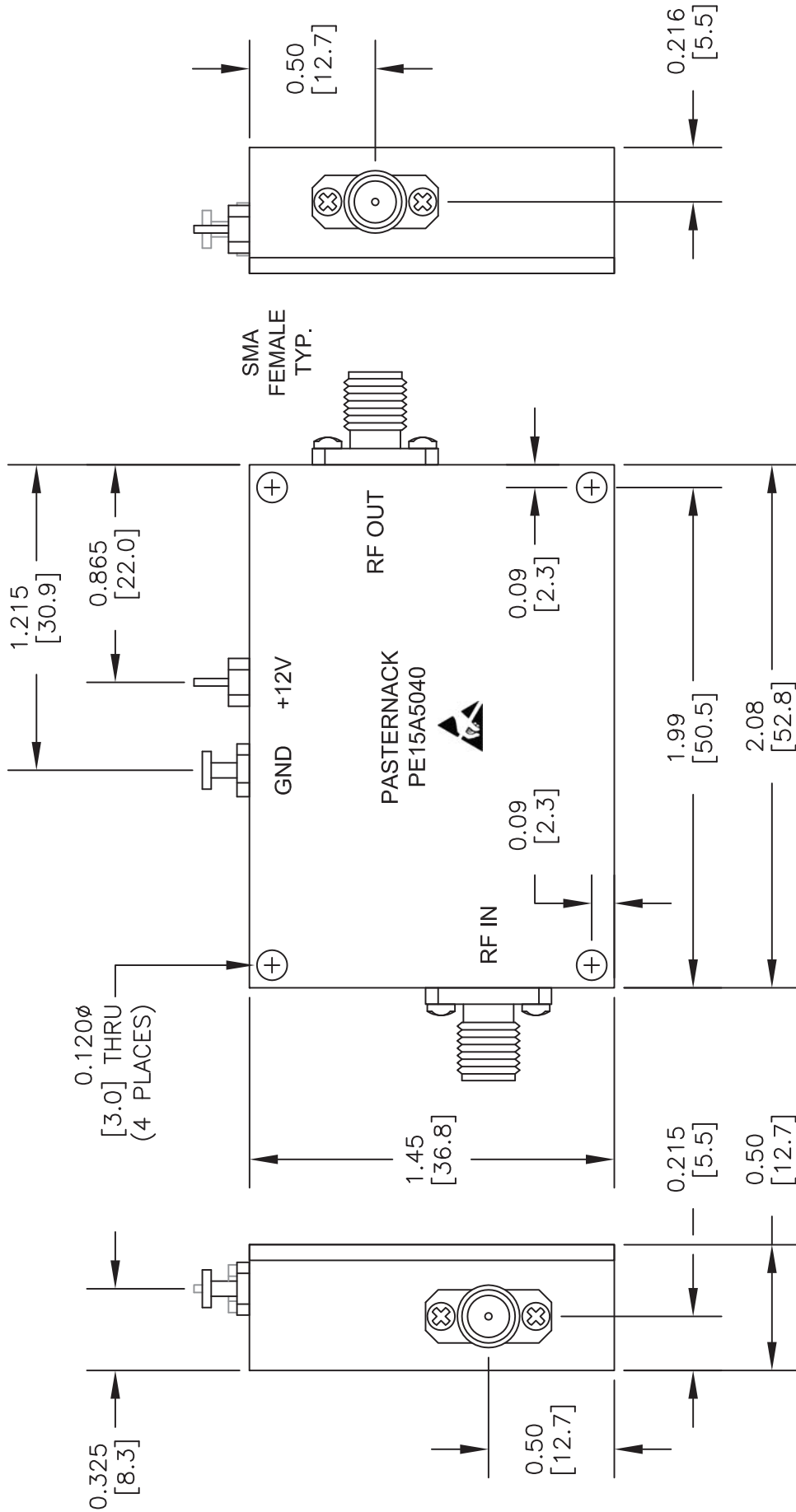
Click the following link (or enter part number in "SEARCH" on website inventory) and [6 Watt P1dB, 800 MHz to 960 MHz, High Power Amplifier, 30 dB Gain, 50 dBm IP3, 3 dB NF, SMA PE15A5040](#)

URL: [http://www.pasternack.com/960-mhz-high-power-amplifier-30-](http://www.pasternack.com/960-mhz-high-power-amplifier-30-dB-gain-50-dBm-ip3-3-dB-nf-sma)

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.

# PE15A5040 CAD Drawing

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



**THE ENGINEER'S RF SOURCE**  
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DWG TITLE

**PE15A5040**

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 070115

SCALE N/A

SIZE A

2233