



Main Features:

- Frequency Range: 2.0 to 6.0 GHz.
- P-1(dB): 15 dBm
- Typical values: NF 1.4 dB, Gain 41 dB
- Gain Flatness ± 1.5 dB typ
- RF connectors (I/O): SMA Female
- Several mounting options

Typical applications:

- Wireless communication equipment
- Test and measurement equipment
- Navigation and aerospace
- Commercial radars
- General-purpose transmitter amplification

PLNA-0200-0600-15

The PLNA-0200-0600-15 is a Low Noise Amplifier providing a gain of 41 dB and a noise figure of 1.4 dB. The compact size and modularity makes it ideal for a wide range of applications.

Performance

| Parameter | Value | | | Units |
|-----------------------|-------------------|-----------|------|-------|
| | Min | Typ | Max | |
| Frequency | 2.0 | - | 6.0 | GHz |
| Output Power (P1dB) | | 15 | | dBm |
| Gain | 39.5 | 41 | 42.5 | dB |
| Gain Flatness | - | ± 1.5 | - | dB |
| Noise Figure | | 1.4 | | dB |
| VSWR input | 1.3 | - | 1.8 | - |
| VSWR output | 1.3 | | 1.8 | |
| DC Voltage | | 5 | | V |
| Current | | 120 | | mA |
| RF Connectors | SMA Female IN/OUT | | | |
| Operating Temperature | -45 to +85 °C | | | |
| Storage Temperature | -55 to 125 °C | | | |

Specifications at a case temperature of 25°C at 5 V

Noise Figure

Figure 1 shows noise figure measurement as a function of frequency at environment temperature (25°C).

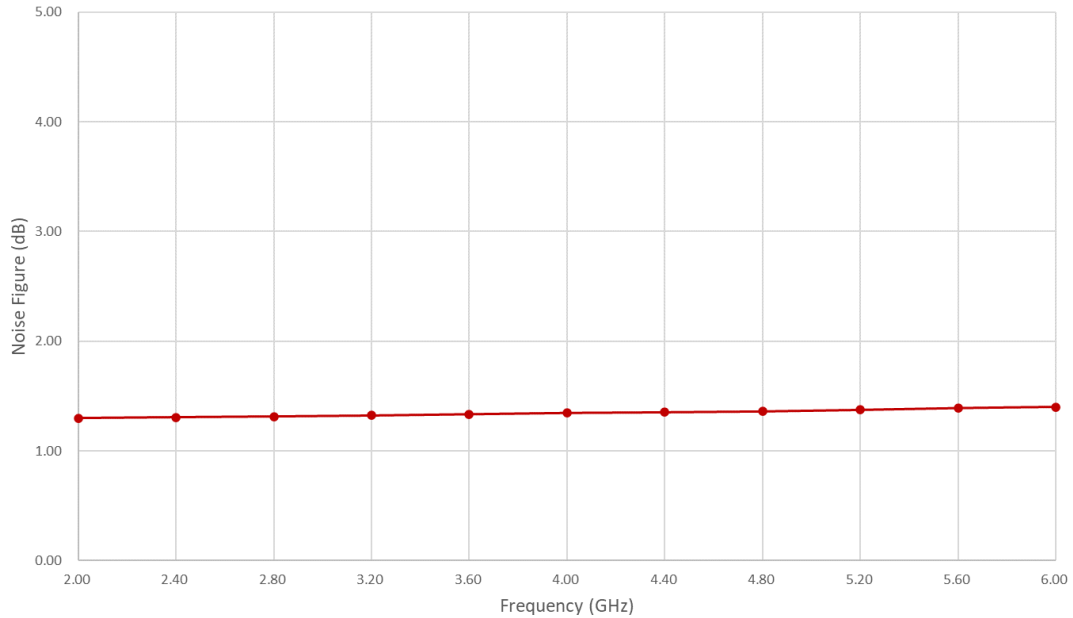


Figure 1: PLNA-0200-0600-15 Noise Figure

Output Power at 1 dB Compression

Figure 2 shows output power at 1dB compression measurement as a function of frequency at environment temperature (25°C).

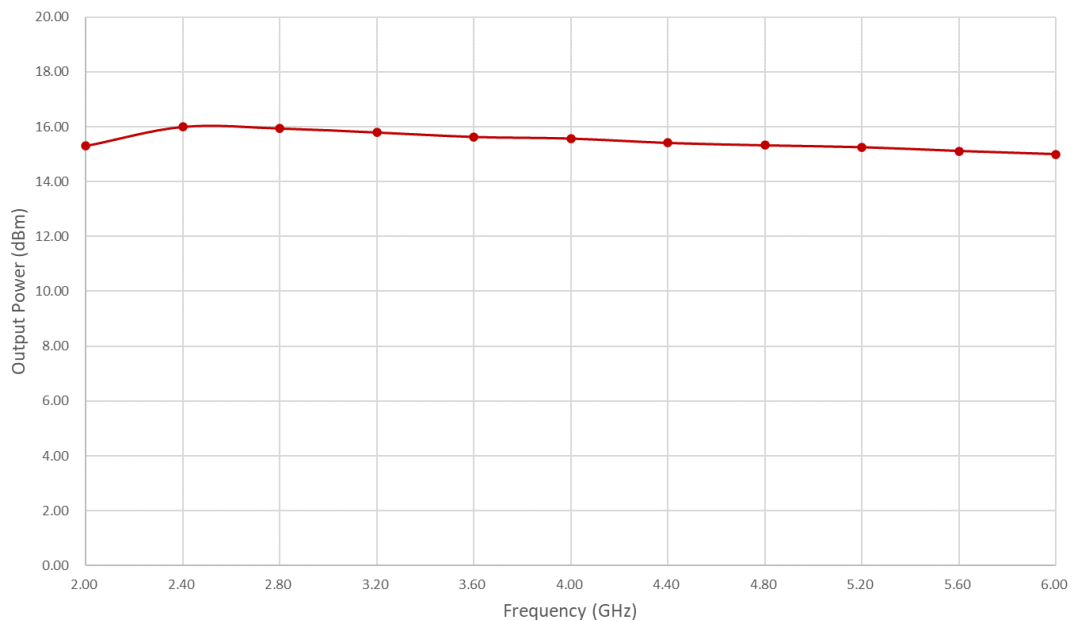


Figure 2: PLNA-0200-0600-15 P1dB

Small Signal Gain Vs Temperature

Figure 3 shows small signal gain measurement as a function of frequency at low (-45°C), normal (25°C) and high (70°C) temperatures.

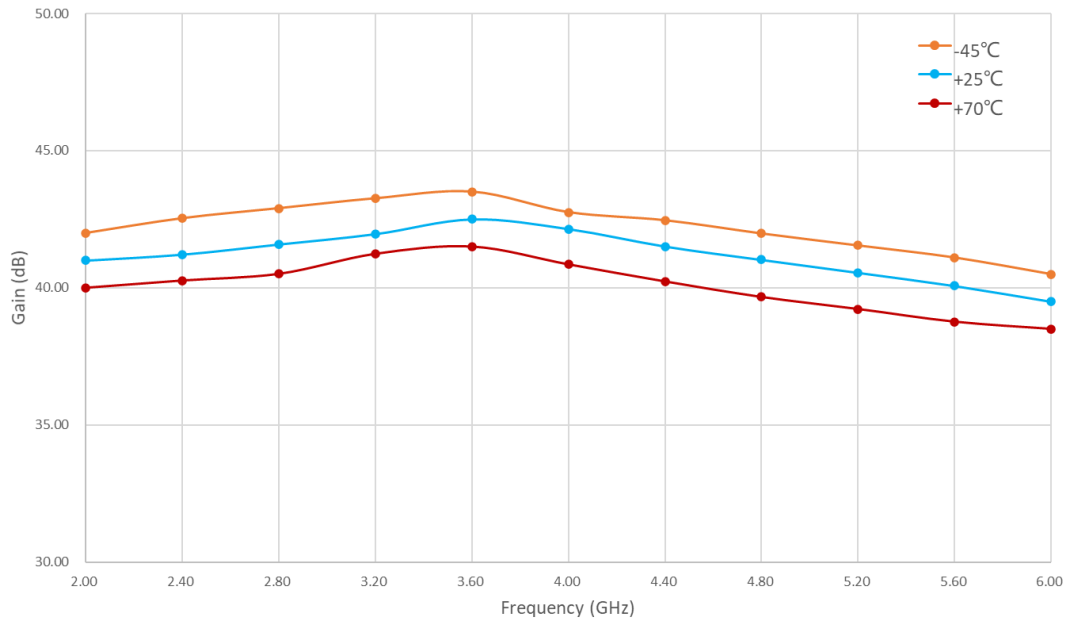


Figure 3: PLNA-0200-0600-15 Small Signal Gain Vs Temperature

Input and Output VSWR

Figure 4 and Figure 5 show input (S11) and output (S22) VSWR as a function of frequency at environment temperature (25°C).

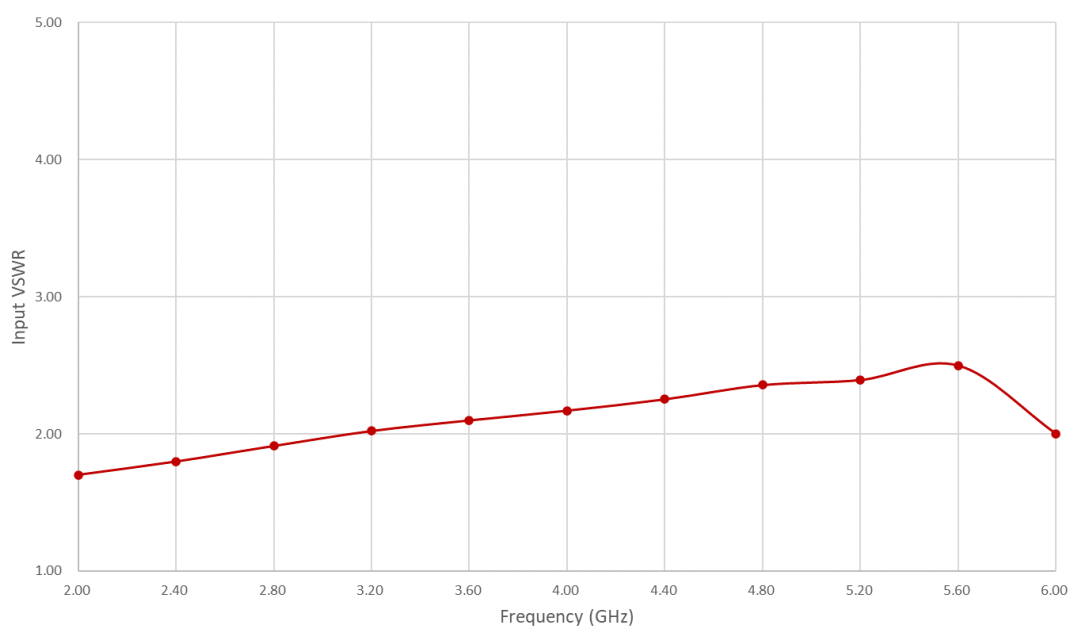


Figure 4: PLNA-0200-0600-15 Input VSWR

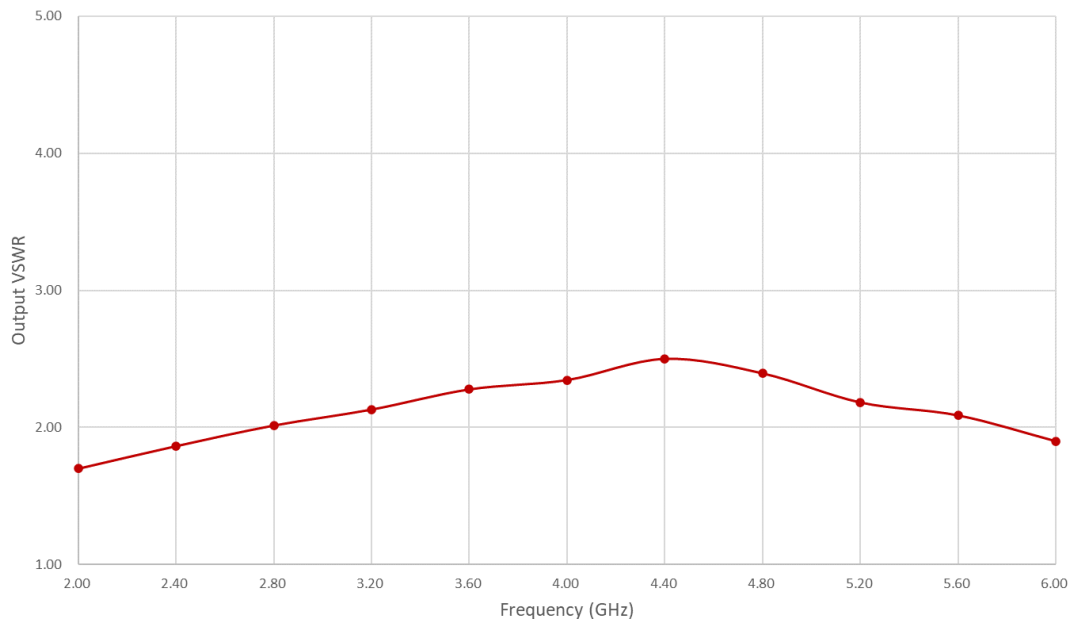


Figure 5: PLNA-0200-0600-15 Output VSWR

Absolute Maximum Ratings

| Condition | Value |
|---------------------------------|---------------|
| DC Voltage | +5.5 VDC |
| Maximum Input Power (CW) | +10 dBm |
| Operation temperature (at case) | -40 to 70 °C |
| Storage temperature | -55 to 125 °C |

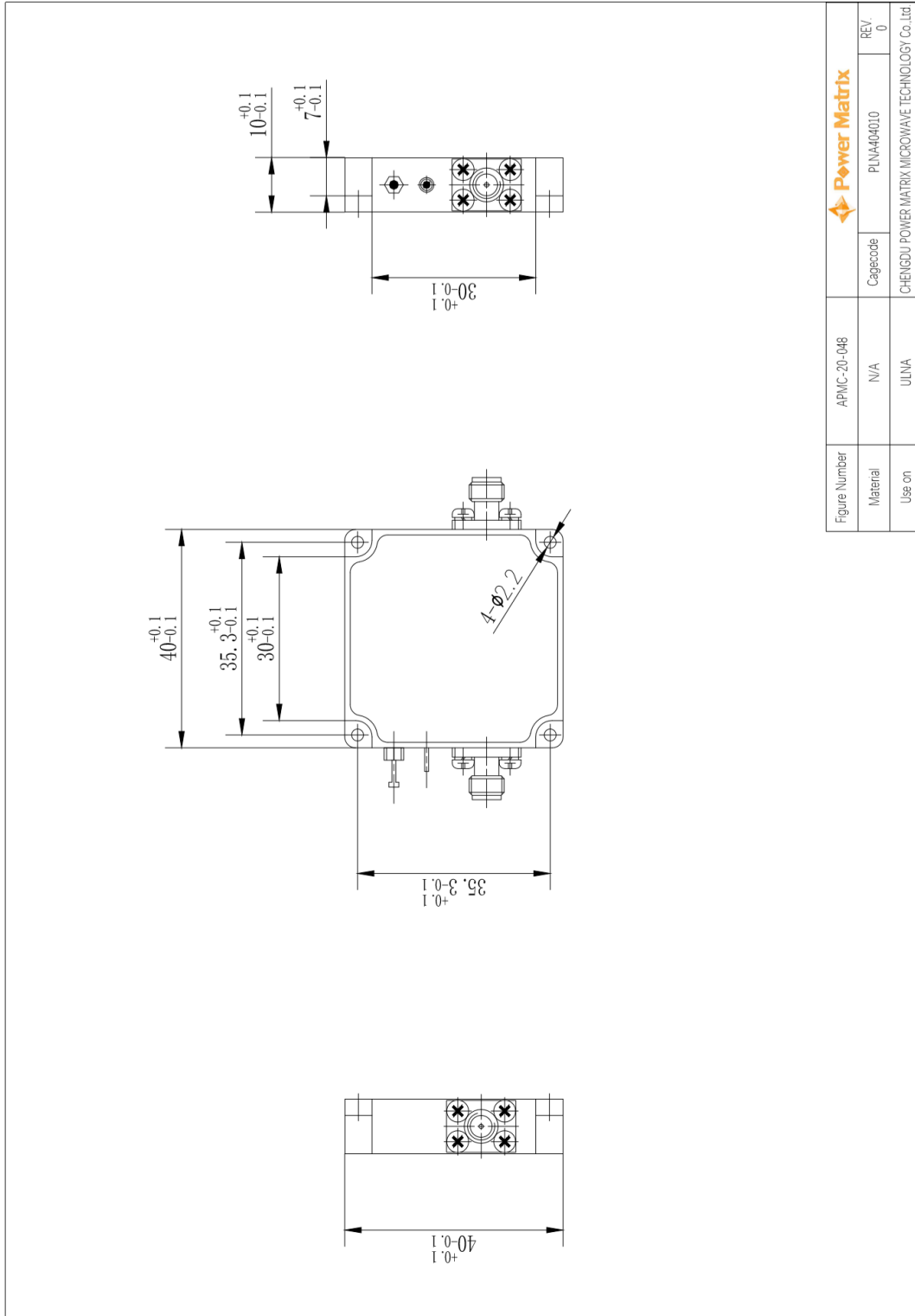
- Stress above these ratings may cause permanent damage to the device.
- It is final user responsibility to maintain the amplifier within the specified ranges.

Measurements Conditions

All measurements provided in this report were performed at the following conditions:

| Condition | Value |
|---|---------------|
| Temperature (DUT ON) | 25 °C ± 1°C |
| Humidity | 44% ± 10% |
| DUT Warm up time | 30 min |
| DUT minimum operation time | 24 hours |
| Test equipment warm up time | 2 hours |
| Additional temperature cycles in climatic chamber (DUT OFF) | -40°C to 85°C |

Mechanics and Housing

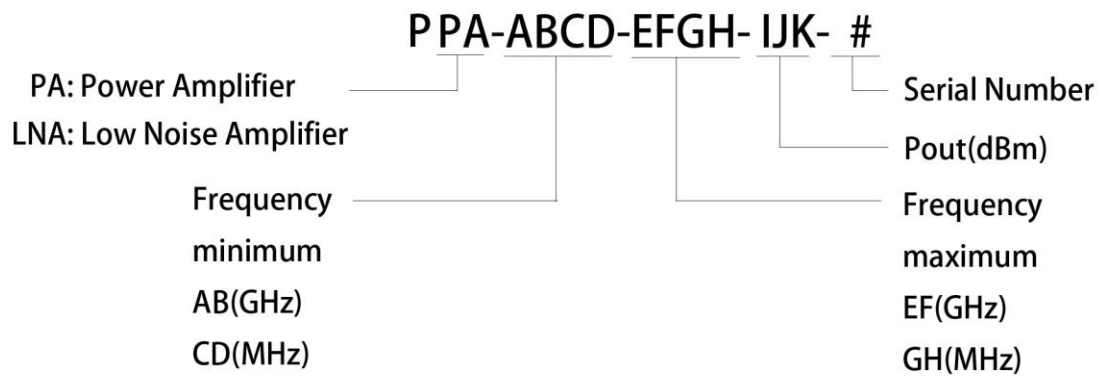




| Identifier | Specification |
|------------|---------------|
| IN | Signal Input |
| OUT | Power Output |
| GND | Ground |
| Vcc | DC Supply +5V |

Model Number Codification

Model Number





Power Matrix

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