



### Main Features:

- Frequency Range: 6.0 to 18.0 GHz.
- P-1(dB): 15 dBm
- Typical values: NF 2 dB, Gain 42 dB
- Gain Flatness  $\pm 2$  dB typ
- RF connectors (I/O): SMA Female
- Several mounting options

### PLNA-0600-1800-15

The PLNA-0600-1800-15 is a Low Noise Amplifier providing a gain of 42 dB and a noise figure of 2 dB. The compact size and modularity makes it ideal for a wide range of applications.

### Typical applications:

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

### Performance

Parameter	Value			Units
	Min	Typ	Max	
Frequency	6.0	-	18.0	GHz
Output Power (P1dB)		15		dBm
Gain	40	42	44	dB
Gain Flatness	-	$\pm 2$	-	dB
Noise Figure		2		dB
VSWR input	1.3	-	1.8	-
VSWR output	1.3		1.8	
DC Voltage		5		V
Current		160		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).

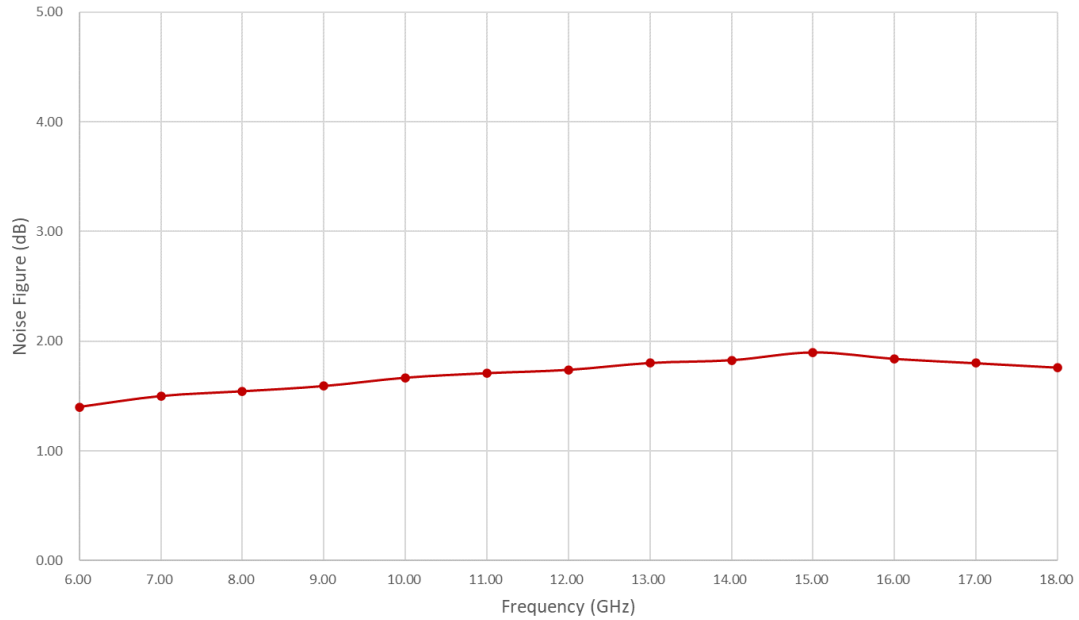


Figure 1: PLNA-0600-1800-15 Noise Figure

## 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).

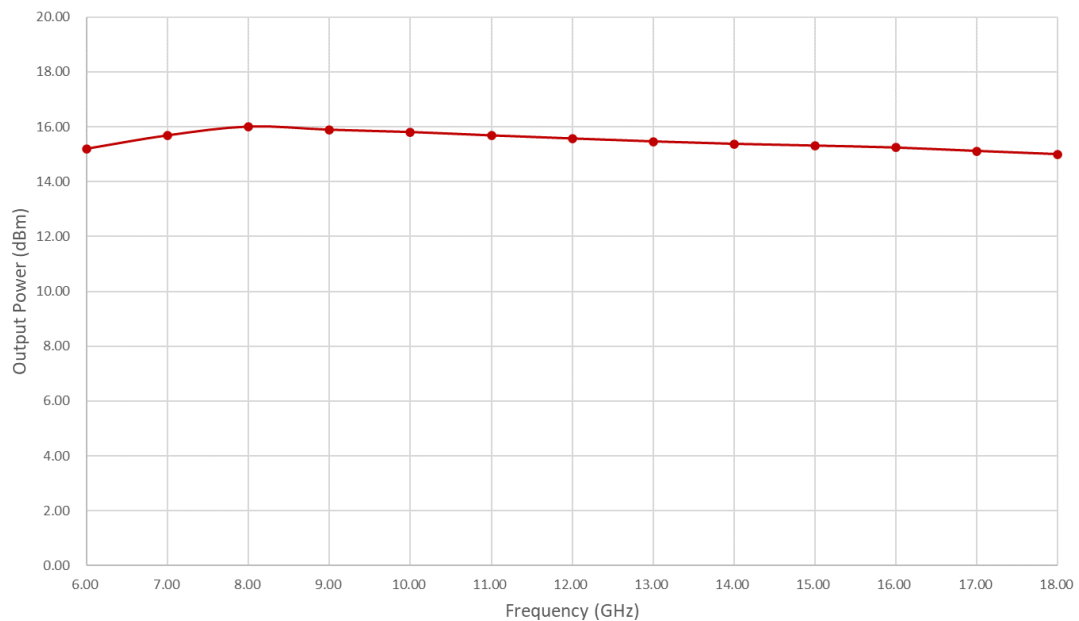


Figure 2: PLNA-0600-1800-15 P1dB

### 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.

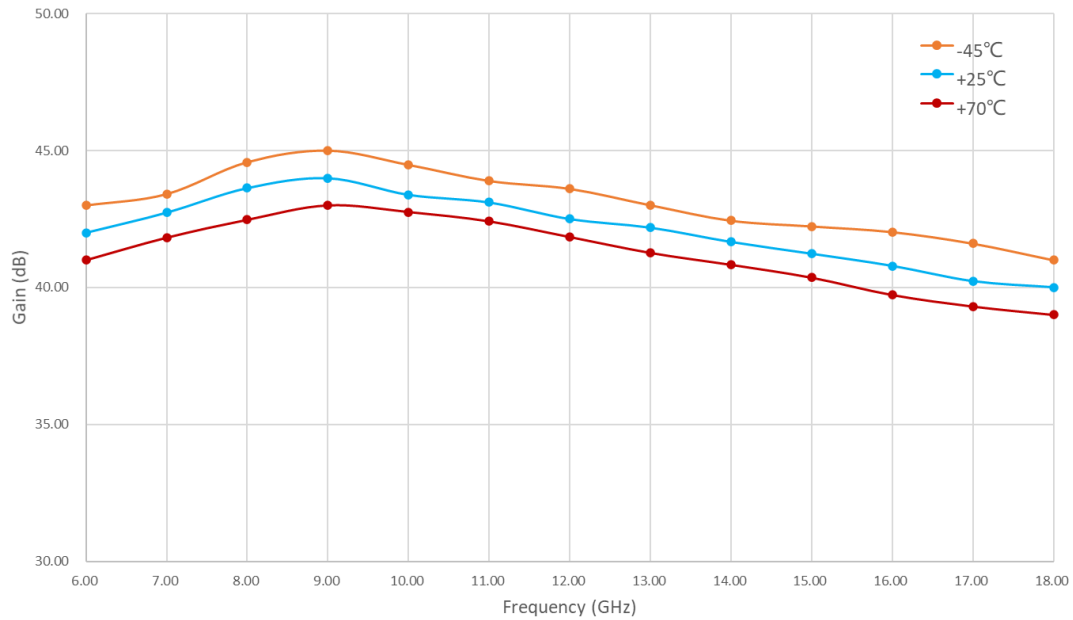


Figure 3: PLNA-0600-1800-15 Small Signal Gain Vs Temperature

### 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).

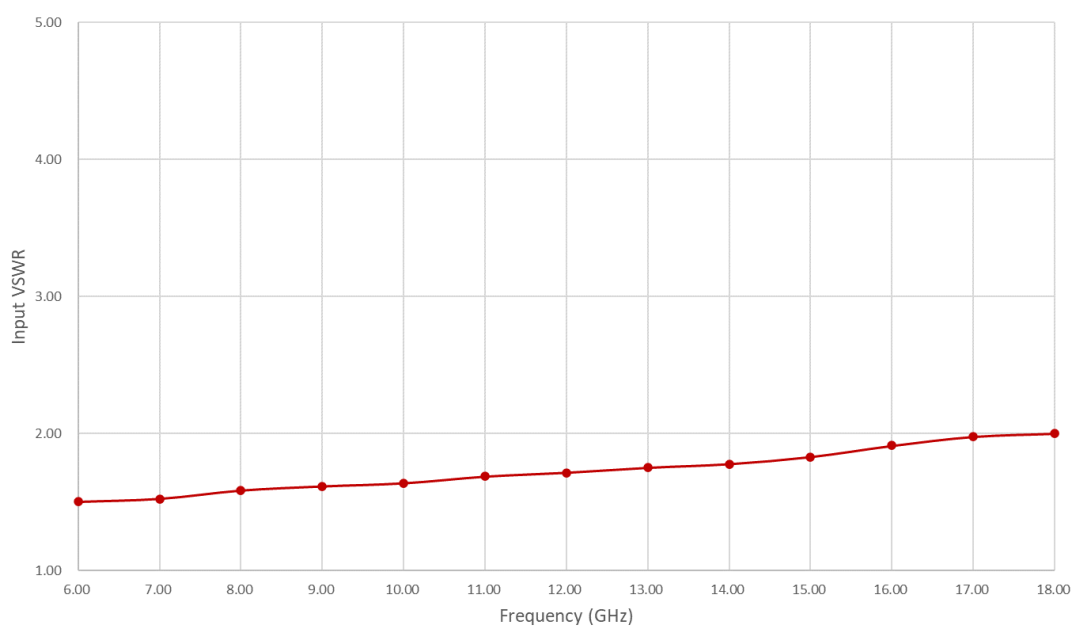


Figure 4: PLNA-0600-1800-15 Input VSWR

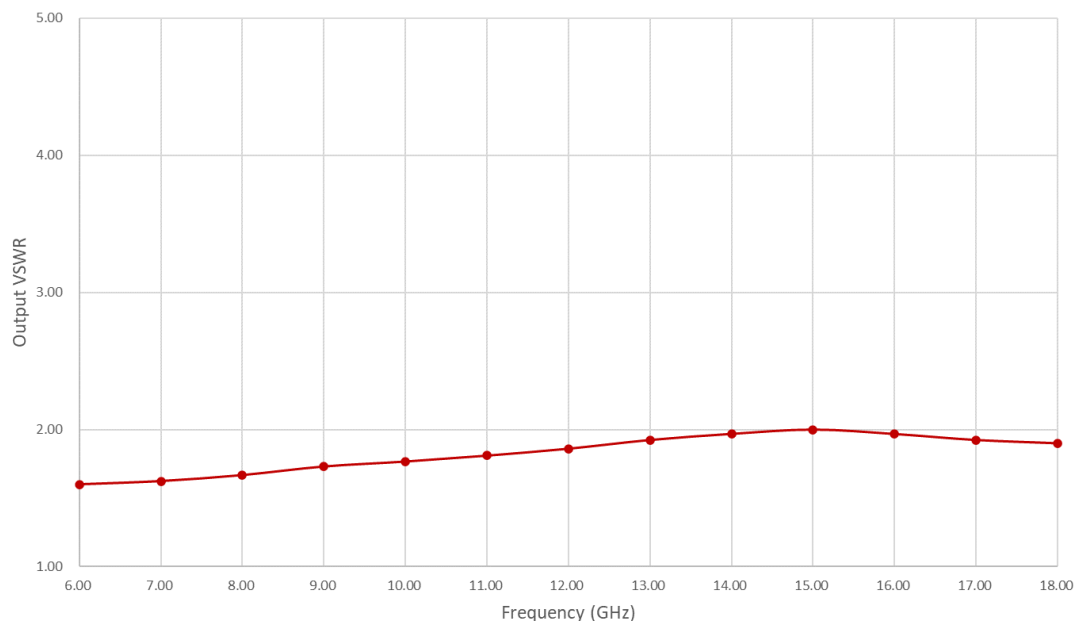


Figure 5: PLNA-0600-1800-15 Output VSWR

### 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

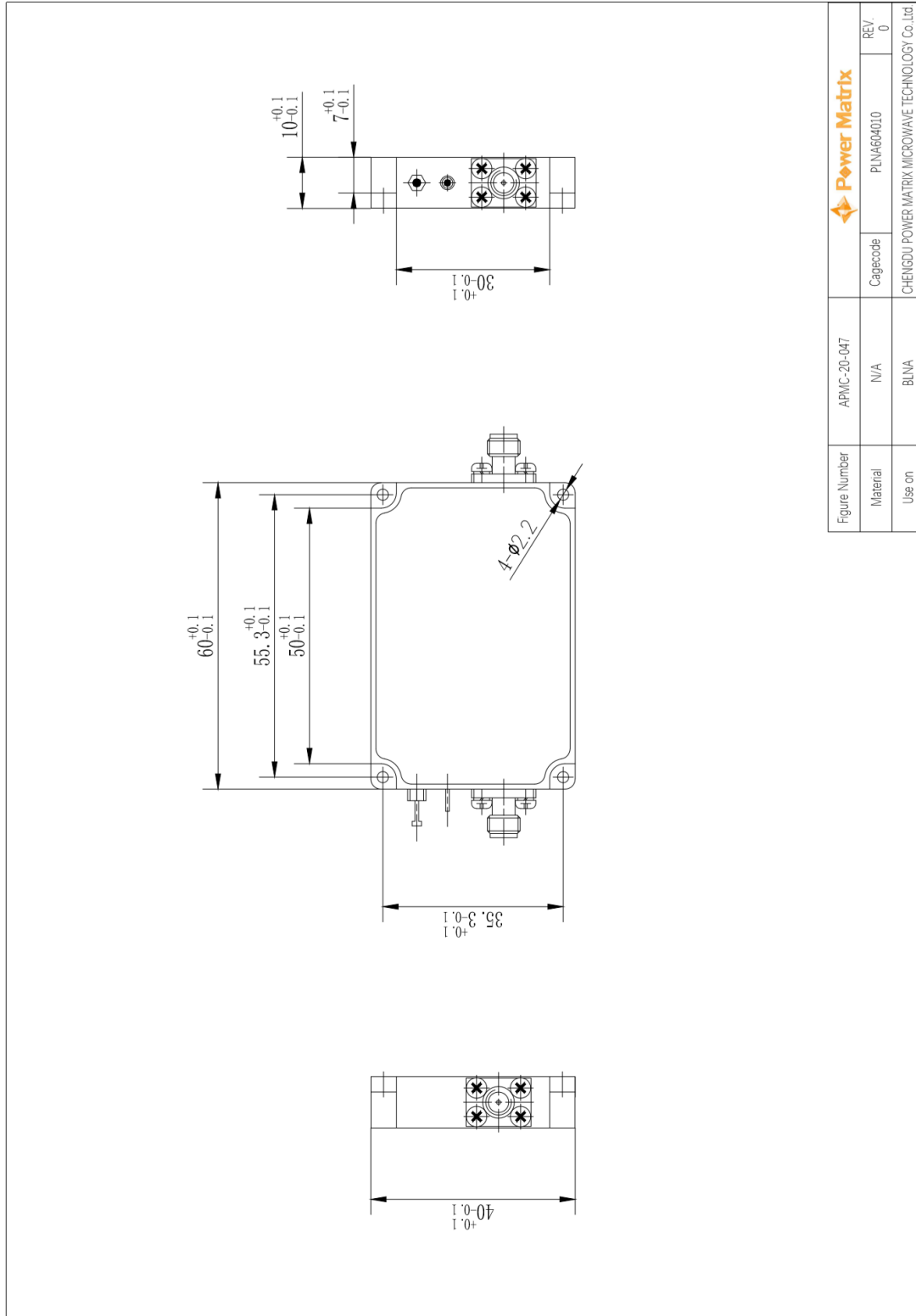
- Stress above these ratings may cause permanent damage to the device.
- It is final user responsibility to maintain the amplifier within the specified ranges.

## 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

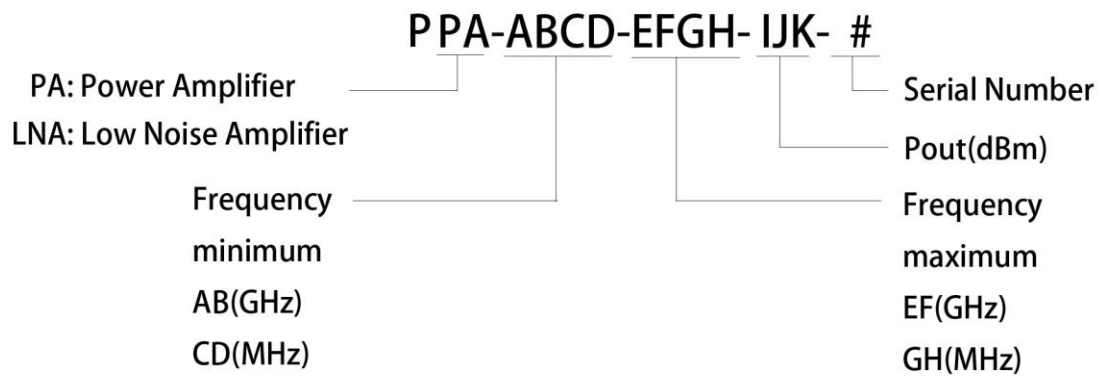




Identifier	Specification
IN	Signal Input
OUT	Power Output
GND	Ground
Vcc	DC Supply +5V

**Model Number Codification**

**Model Number**







**Power Matrix**

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