



Main Features:

- Frequency Range: 8.5 to 9.6 GHz.
- Typical values: Pout 47 dBm, Gain 40 dB
- Power Added Efficiency: 25%
- Gain Flatness ± 1 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

GPA-0850-0960-47

The GPA-0850-0960-47 is a High Power Amplifier providing an output power of 47 dBm and a gain of 40 dB. The compact size and modularity makes it ideal for a wide range of applications.

Performance

| Parameter | Value | | | Units |
|-----------------------|-------------------|---------|-----|-------|
| | Min | Typ | Max | |
| Frequency | 8.5 | - | 9.6 | GHz |
| Output Power | | 47 | | dBm |
| Small Signal Gain | 39 | 40 | 41 | dB |
| Gain Flatness | - | ± 1 | - | dB |
| VSWR input | 1.4 | - | 1.9 | - |
| DC Voltage | | 28 | | V |
| 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 32 V

Saturated Output Power

Figure 1 shows saturated output power measurement as a function of frequency at low (-45°C), normal (25°C) and high (70°C) temperatures.

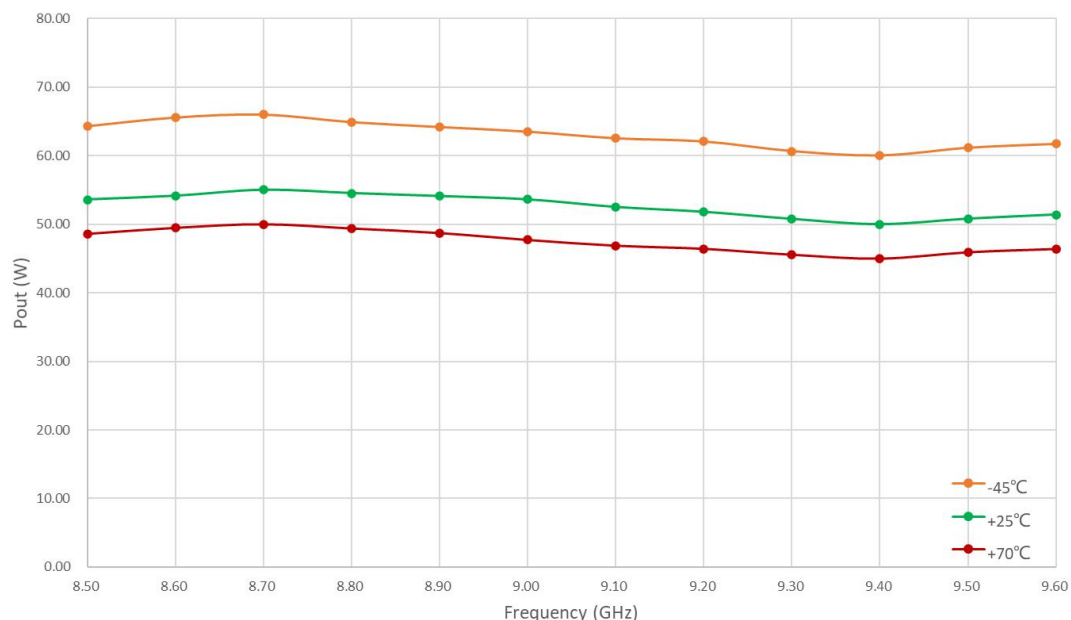


Figure 1: GPA-0850-0960-47 Psat

Small Signal Gain Vs Temperature

Figure 2 shows small signal gain measurement as a function of frequency at low (-45°C), normal (25°C) and high (70°C) temperatures.

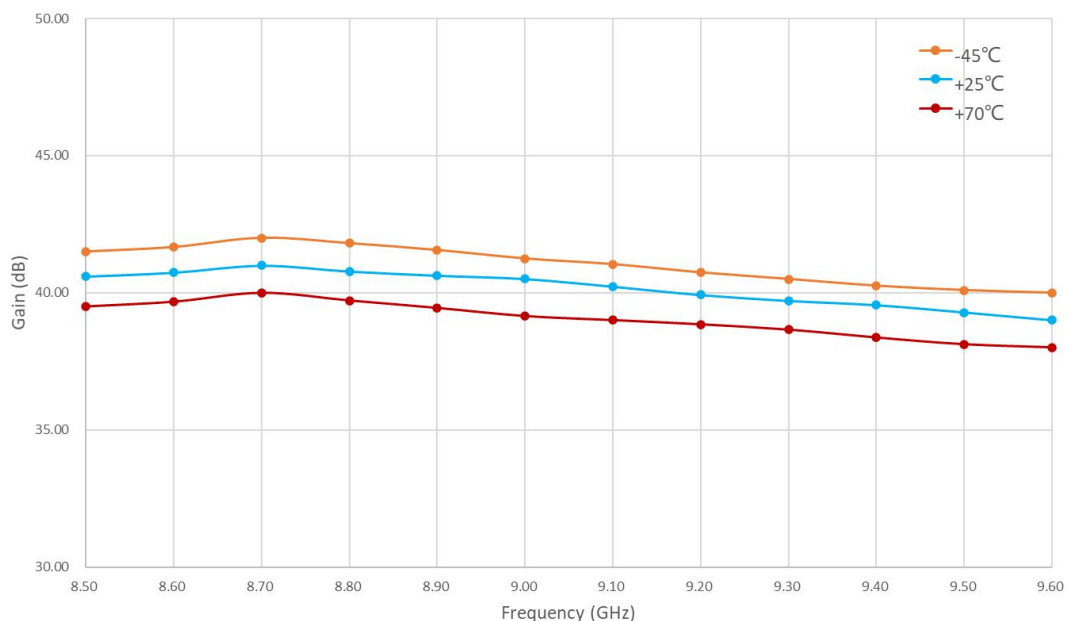


Figure 2: GPA-0850-0960-47 Small Signal Gain Vs Temperature

Input VSWR

Figure 3 shows input (S11) VSWR as a function of frequency at environment temperature (25°C).

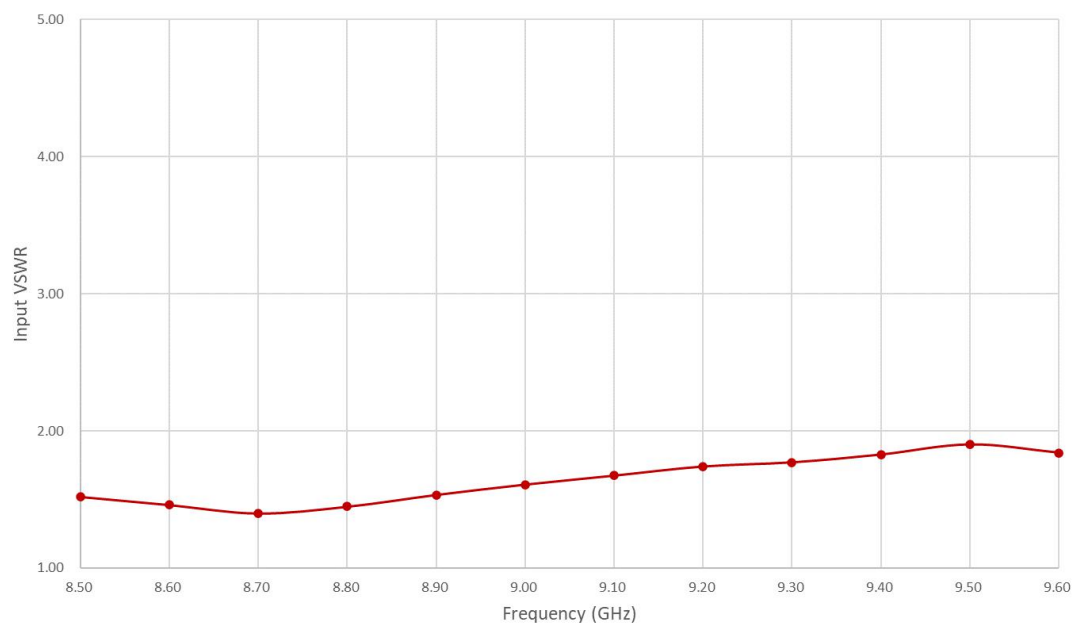


Figure 3: GPA-0850-0960-47 Input VSWR

P.A.E

Figure 4 shows P.A.E as a function of frequency at environment temperature (25°C)

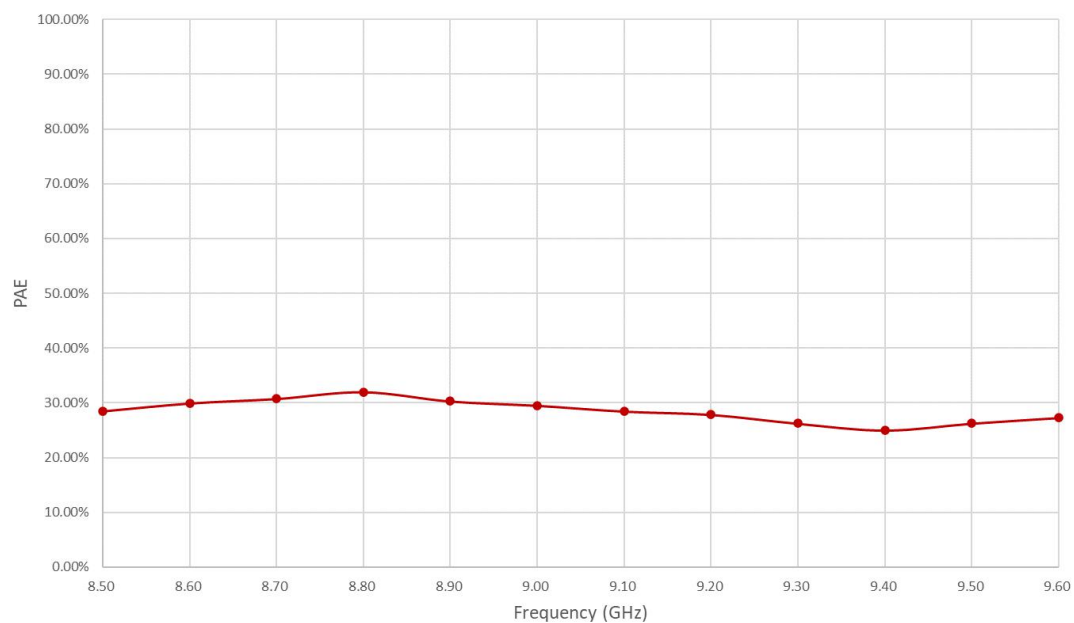


Figure 4: GPA-0850-0960-47 P.A.E

Absolute Maximum Ratings

| Condition | Value |
|---------------------------------|---------------|
| DC Voltage | +35 VDC |
| Maximum Input Power (CW) | +15 dBm |
| Operation temperature (at case) | -40 to 70 °C |
| Storage temperature | -55 to 125 °C |

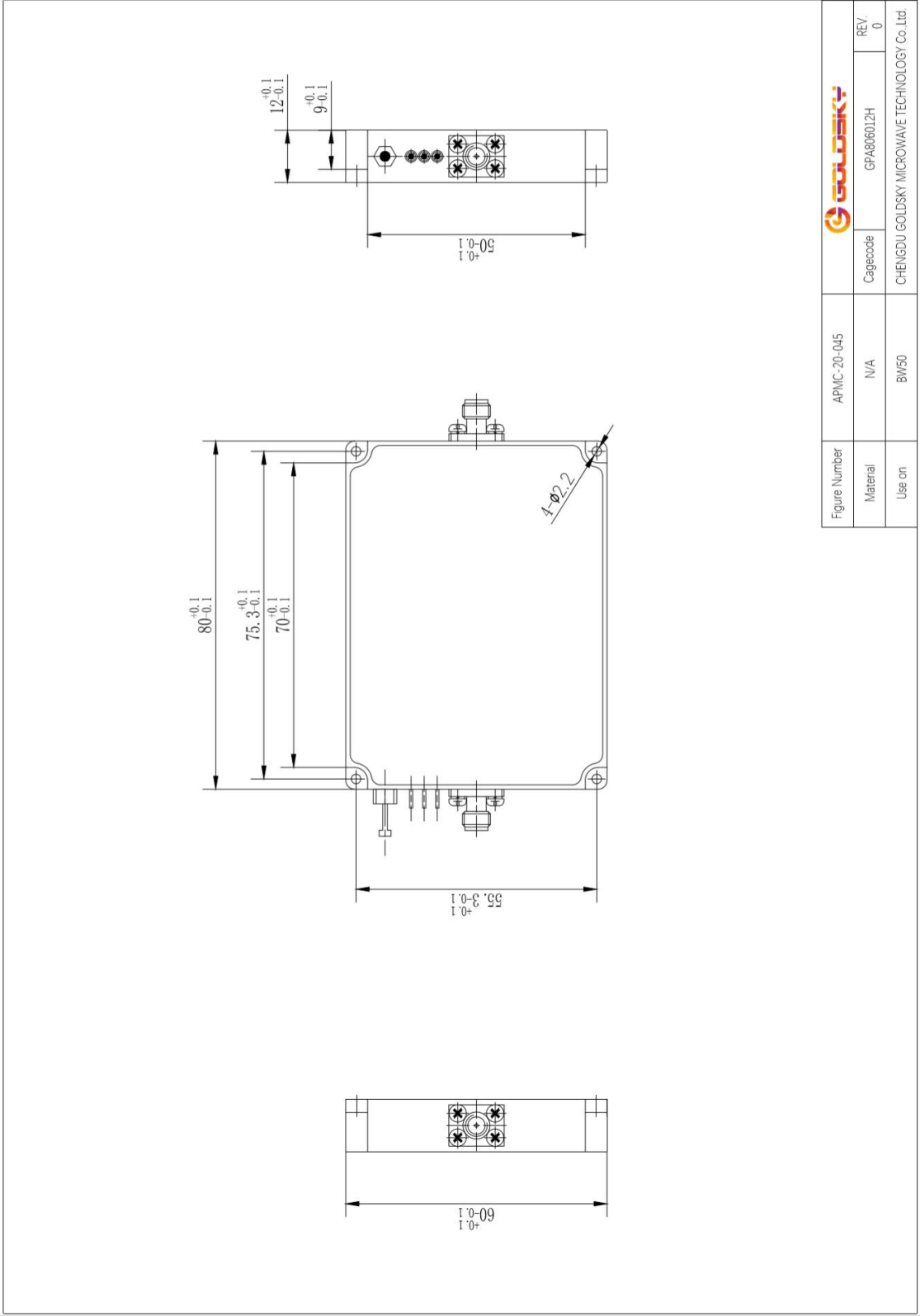
- Stress above these ratings may cause permanent damage to the device.
- It is final user responsibility to maintain the amplifier within the specified ranges.

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 |
| Vcc1 | DC Supply +28V |
| Vcc2 | DC Supply +28V |
| EN | ENABLE (can be used for pulse modulation) |



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