



AT-PA-6090-2325GN

60-90GHz High Power Amplifier

Full E band High Power PA, Psat=+25dBm 60-90GHz Gain=23dB, WR-12

2021-12-3



Product Overview

AT-PA-6090-2325GN is a medium power amplifier operating in the 60-90GHz frequency range. The HPA is packaged in a waveguide module using industry standard WR12.

GaN Based MMIC technology Chips are used, which ensures reliable and repeatable unit-to-unit result. Higher gain amplifier can be achieved.

More information, please visit www.atmicrowave.com

Advantages

- ✓ Frequency: 60-90GHz
- ✓ Gain: 23dB
- ✓ Pout: +25dBm
- ✓ Single Supply

Application

- ✓ E band Communication
- ✓ FOD (Foreigner Objects Debris)
- ✓ Test Equipment
- ✓ ROF (RF Over Fiber)
- ✓ Radar System

Key Features

| Parameter | Min | Typical | Max |
|----------------------|--------|----------|------|
| Frequency | | 60-90GHz | |
| Small Signal Gain | 19dB | 23dB | |
| Gain Flatness | | +/-2.5dB | |
| Psat (see test plot) | +23dBm | +25dBm | |
| Drain Supply | | +16V | +18V |
| Current/NO RF | | 0.75A | |
| IDD/Psat | | 0.9A | |
| Input Return Loss | | -5dB | |
| Output Return Loss | | -5dB | |
| Spec Temp | | 25C | |





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Mechanical Information

| Item | Description |
|---------------------------|-------------|
| Input Port | WR-12 |
| Output Port | WR-12 |
| Case Material | Copper |
| Finish | Gold Plated |
| Weight (Without Heatsink) | 270g |
| Size: | See outline |

Absolute Maximum Ratings Table

| Parameter | Value |
|-----------------------|--------------|
| Drain Supply | +20V |
| RF Input Power | +20dBm |
| Operating Temperature | 0 to +50C |
| Storage Temperature | -65 to +150C |

Notes:

1. Datasheet may be changed according to update of MMIC, Raw materials , process, and so on.
2. This data is only for reference, not for guaranteed specifications.
3. Please contact AT Microwave team to make sure you have the most current data.

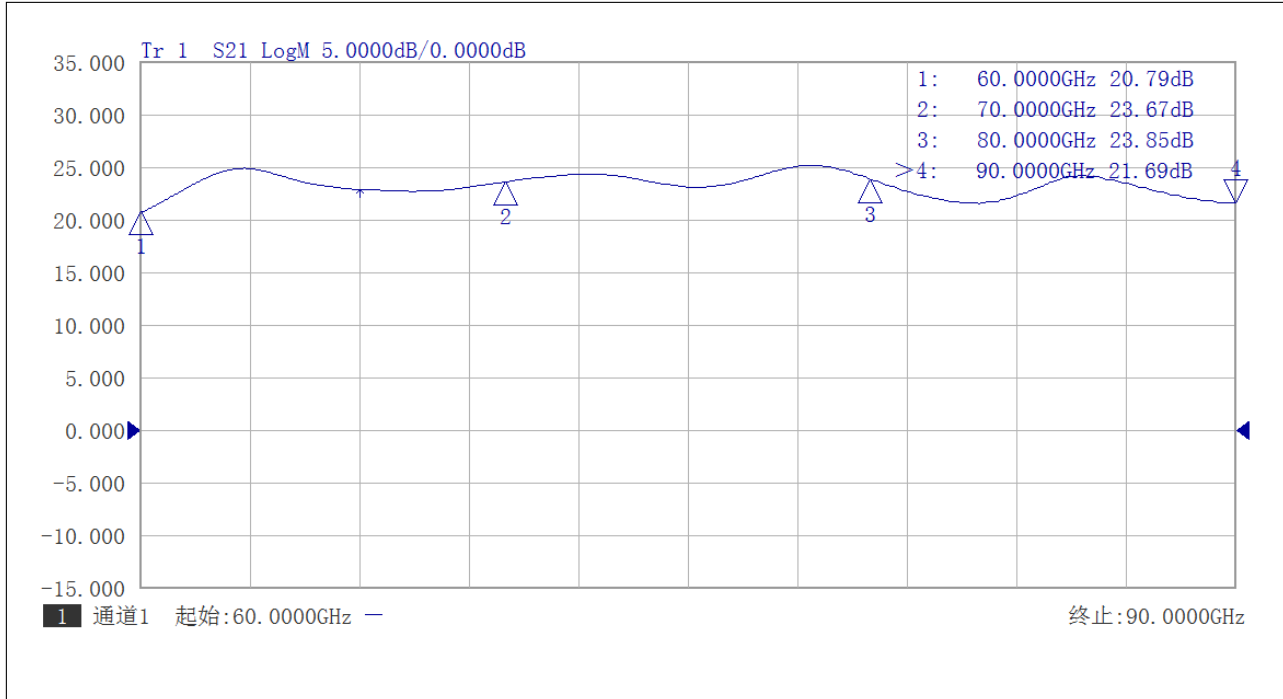




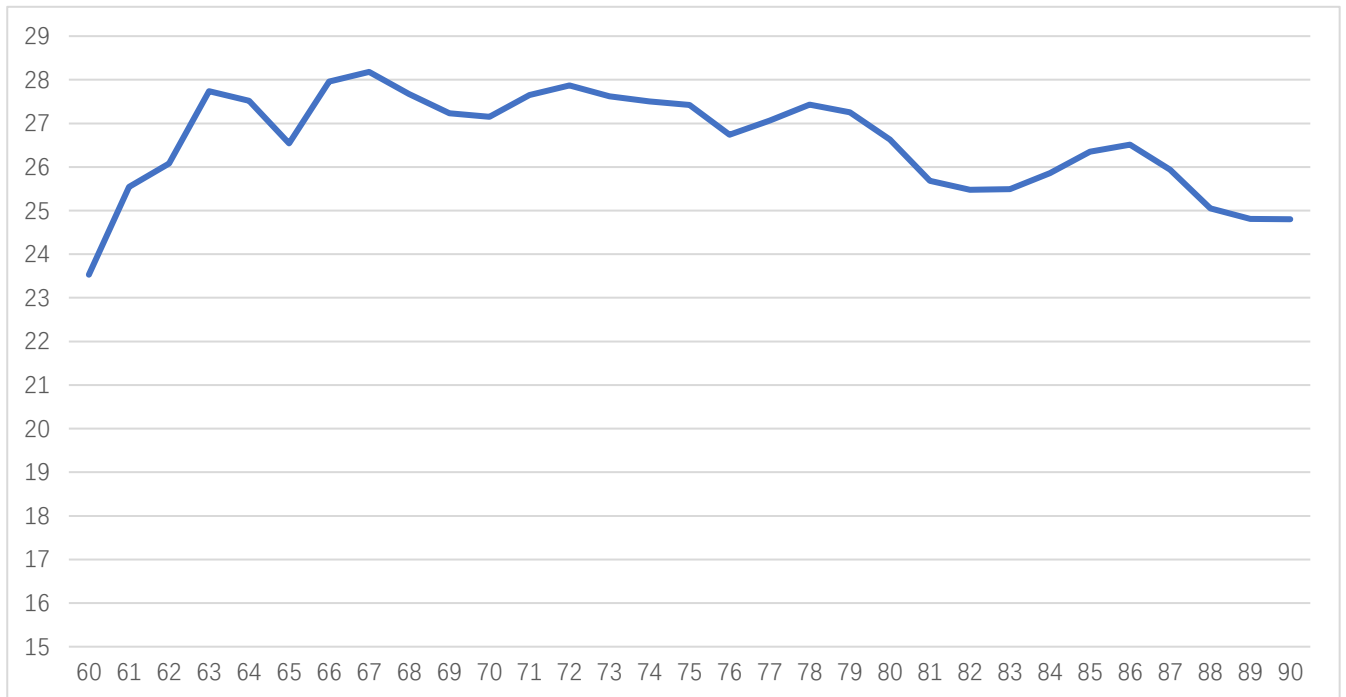
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Test Data

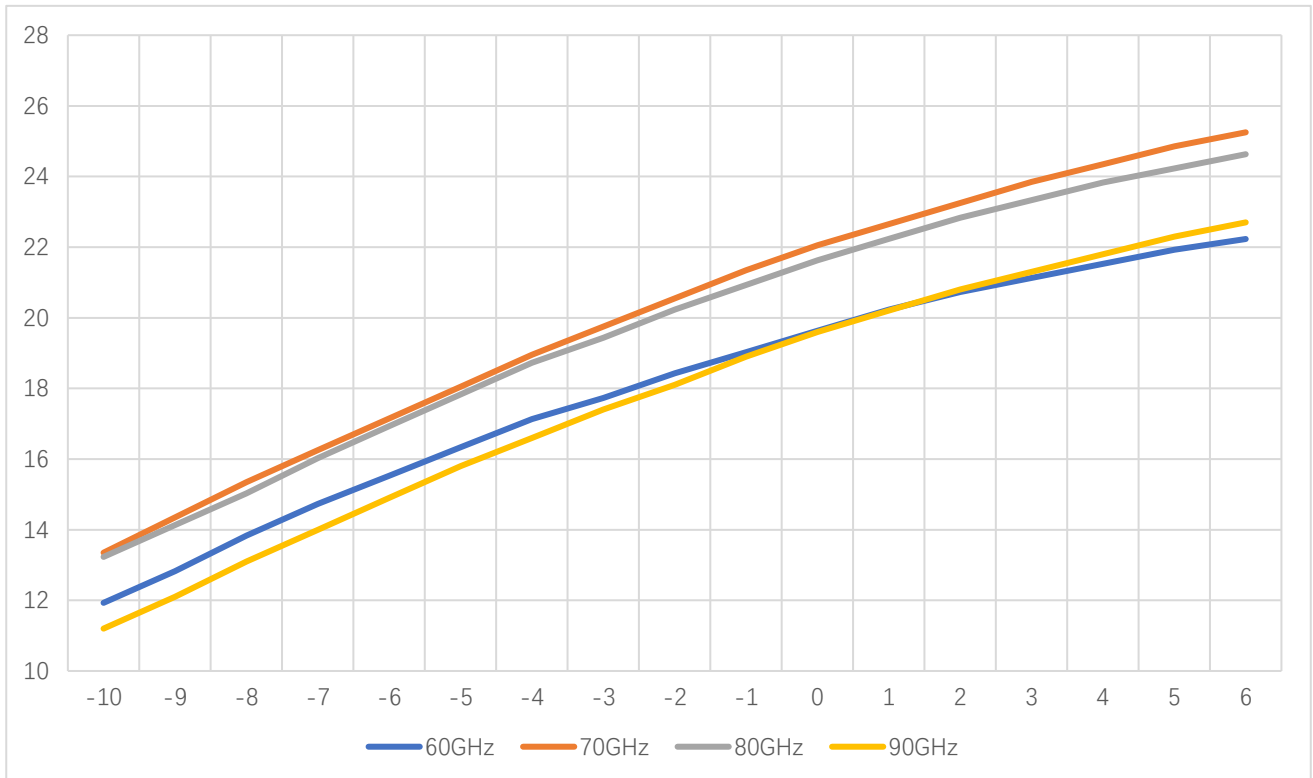


Small Signal Gain vs Frequency



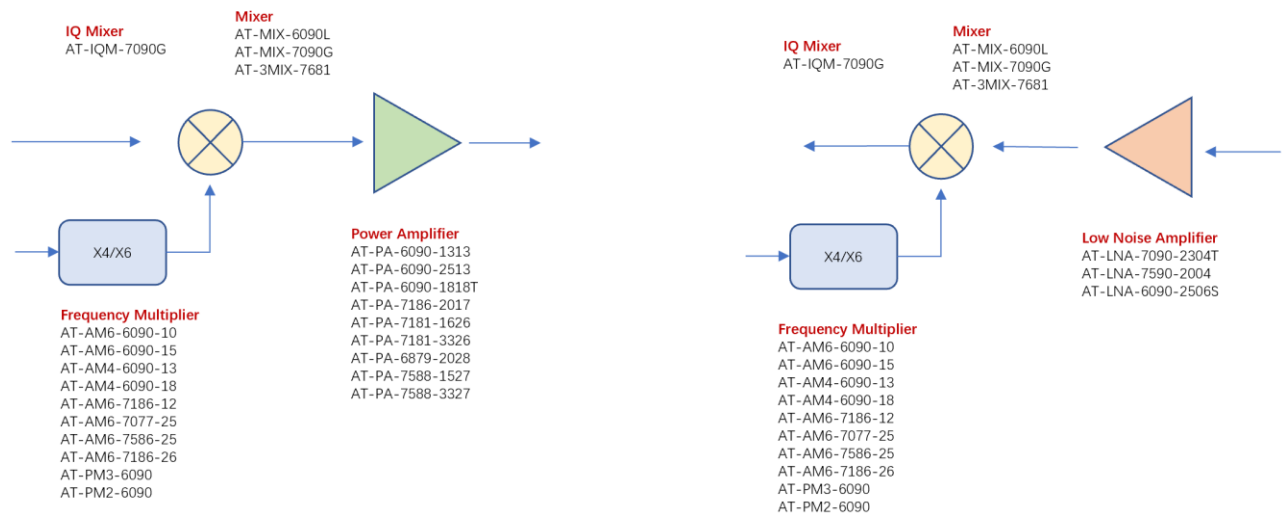
Psat vs Frequency, Pin=+8dBm



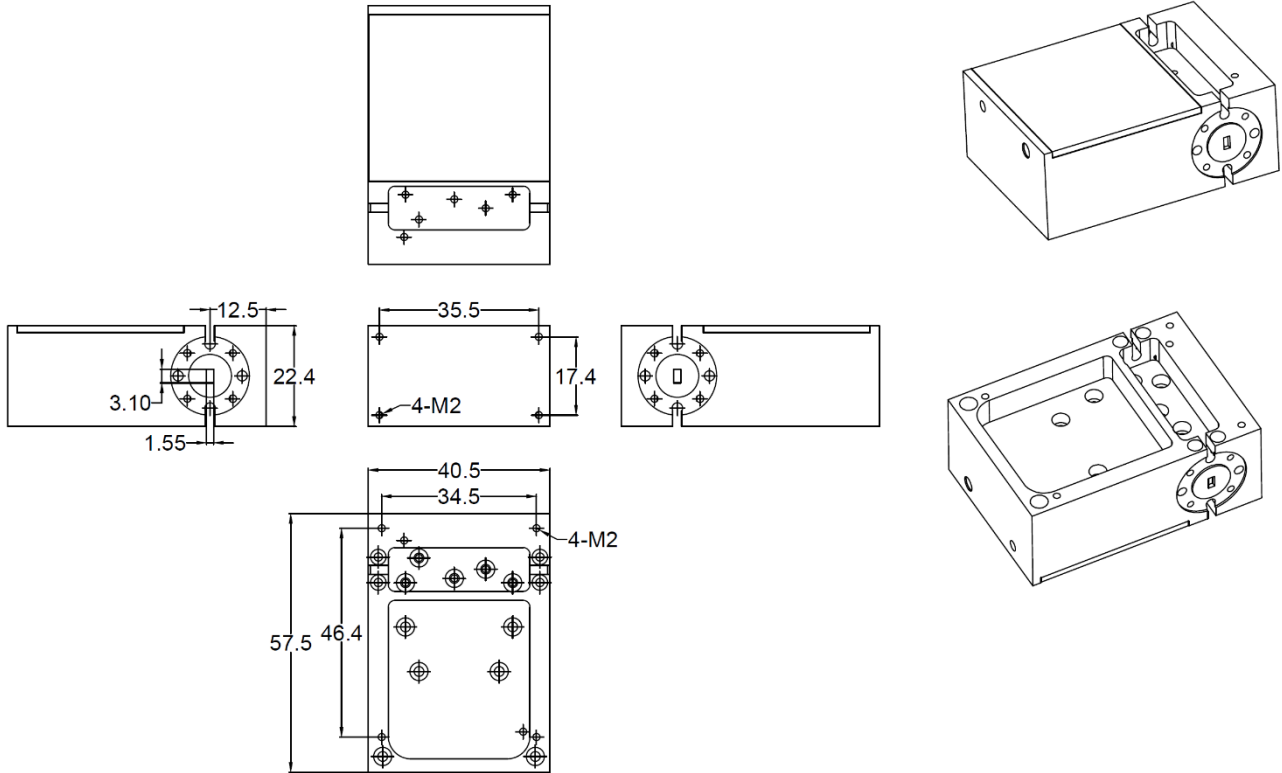


Pout vs Pin at 60/70/80/90GHz

E Band 60-90GHz



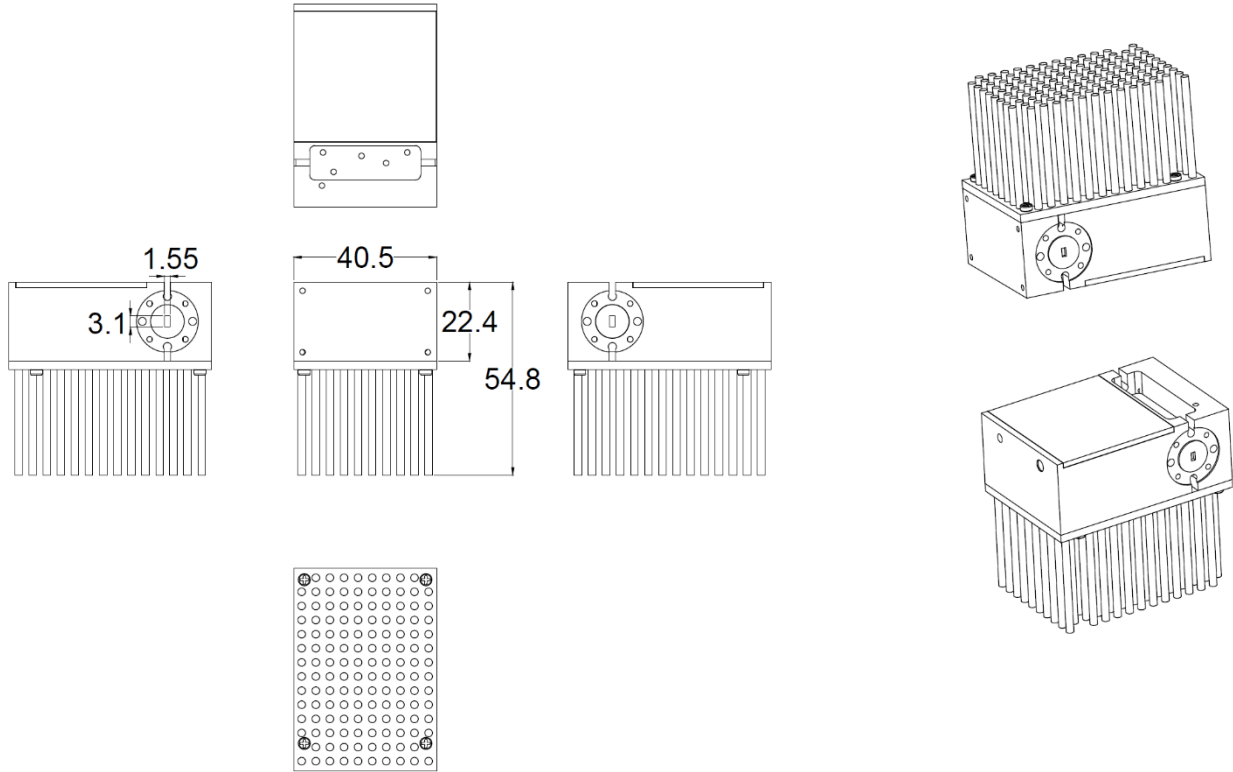
Dimension: (mm)



Heatsink Required during operation.



Dimension with heatsink:(unit in mm)



Dimension with Heatsink

AT Microwave provides a heatsink in default if Pout is higher than +20dBm
Customer can remove the heatsink easily and use their own heatsink if need.

