

## DESCRIPTION

AMCOM's AM206048SF-5H is a broadband GaN Power Amplifier module designed for general purpose applications. It operates from 2 GHz to 6 GHz and typically delivers 60 watts (48dBm) of CW output power and 54dB small signal gain. The amplifier module has 6 screw slots for mounting to a heat sink. This amplifier module is compact and light weight at 6" (L) x 4" (W) x 0.75" (H).



## FEATURES

- Wide bandwidth from 2 to 6 GHz
- Psat 48 dBm, Gain 54dB
- Input / Output matched to 50 Ohms
- TTL control

## APPLICATIONS

- Radar
- Fixed microwave backhaul
- Instrumentation and measurements
- Military and Aerospace

## TYPICAL PERFORMANCE \* (Quiescent bias is +32V, I<sub>ddq</sub> = 6.5A)

| Parameters                 | Minimum                     | Typical ** | Maximum  |
|----------------------------|-----------------------------|------------|----------|
| Frequency                  | 2.25 – 5.75 GHz             | 2 – 6 GHz  |          |
| Small Signal Gain          | 50 dB                       | 54 dB      | 58 dB    |
| Gain Ripple                |                             | ± 1.5 dB   | ± 3.0 dB |
| P <sub>1dB</sub>           |                             | 43 dBm     |          |
| P <sub>5dB</sub>           | 46 dBm                      | 48 dBm     |          |
| Current @ P <sub>5dB</sub> |                             | 9.5A       |          |
| Noise Figure               |                             | 6 dB       |          |
| IP3                        |                             | 53 dBm     |          |
| Input Return Loss          |                             | 10 dB      |          |
| Output Return Loss         |                             | 7 dB       |          |
| Switching Time             |                             | 5 µS       |          |
| TTL RF ON/OFF              | <1V for OFF , >2.5 V for ON |            |          |

\* Notes:

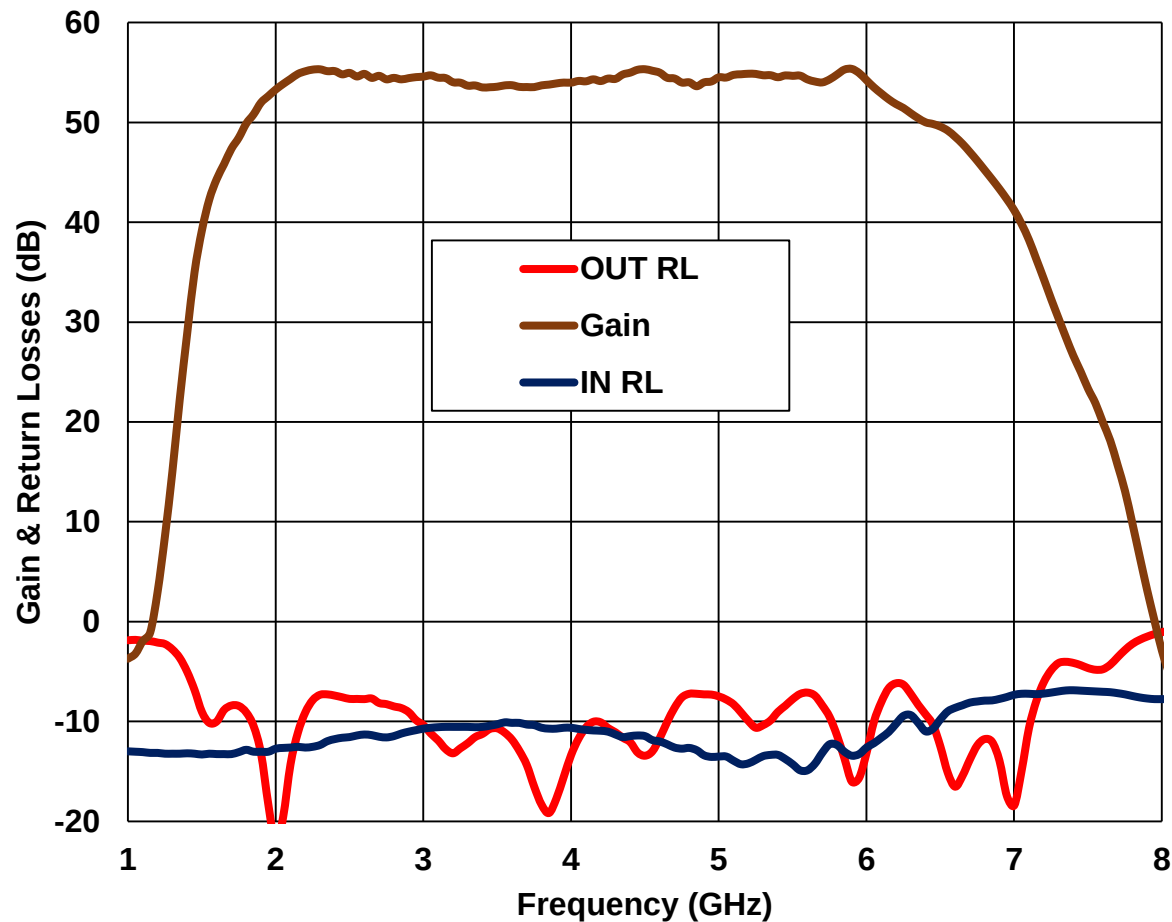
1- Specifications are subject to change without notice.

2- Proper heat sink should be used to remove heat from bottom of package.

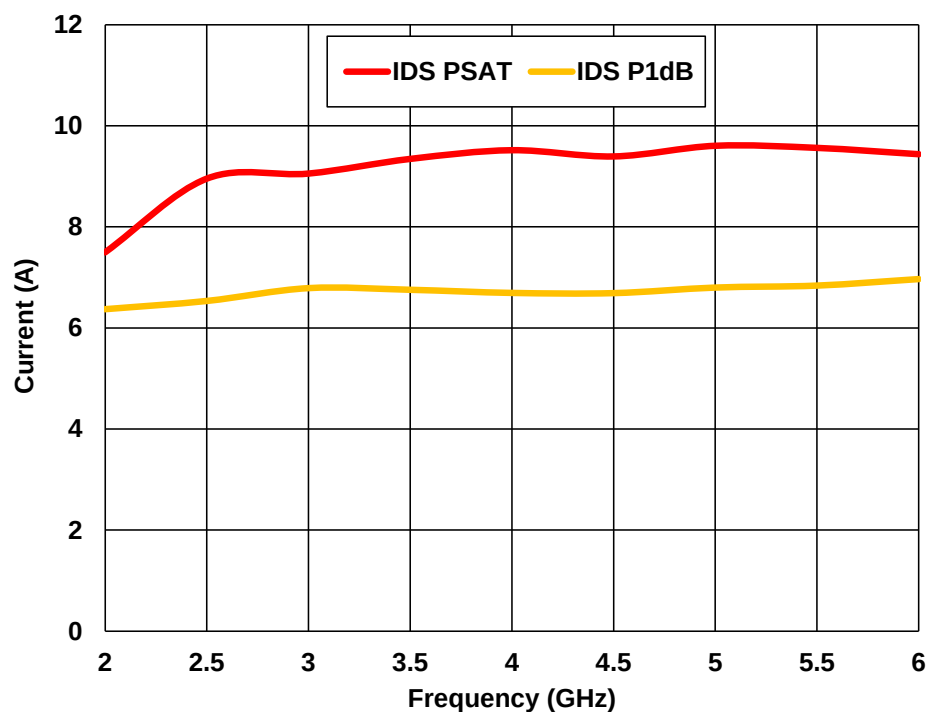
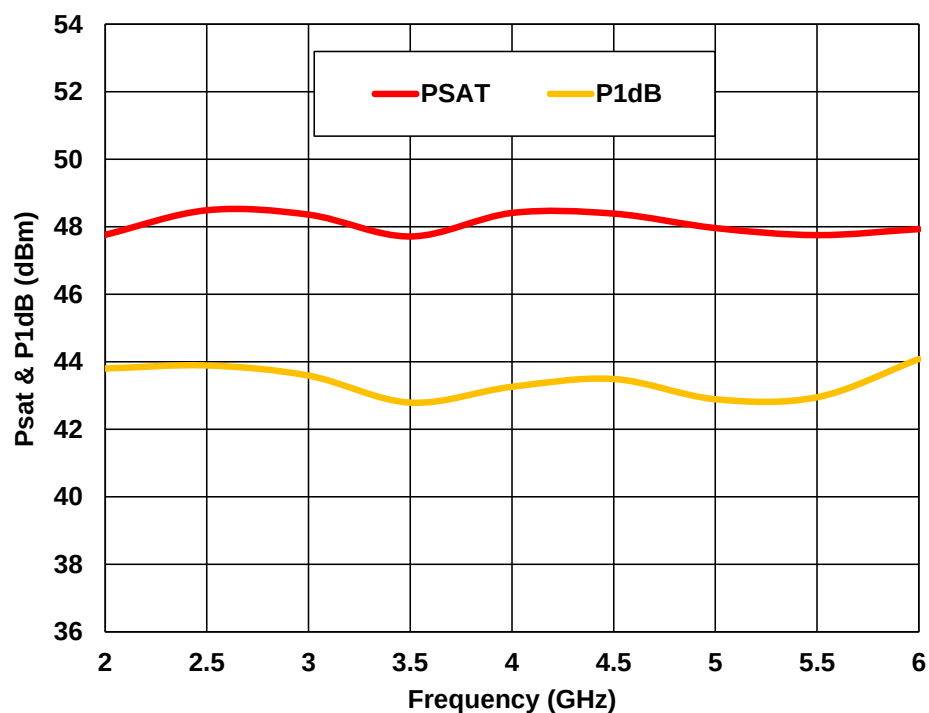
## ABSOLUTE MAXIMUM RATING

| Parameters                     | Symbol         | Rating          |
|--------------------------------|----------------|-----------------|
| Maximum RF input               | $RF_{in\ Max}$ | +3 dBm          |
| Drain source voltage           | $V_{dd}$       | 36V             |
| Continuous dissipation at 25°C | $P_t$          | 360W            |
| Operating temperature          | $T_{op}$       | -40°C to +85°C  |
| Storage temperature            | $T_{sto}$      | -55°C to +135°C |

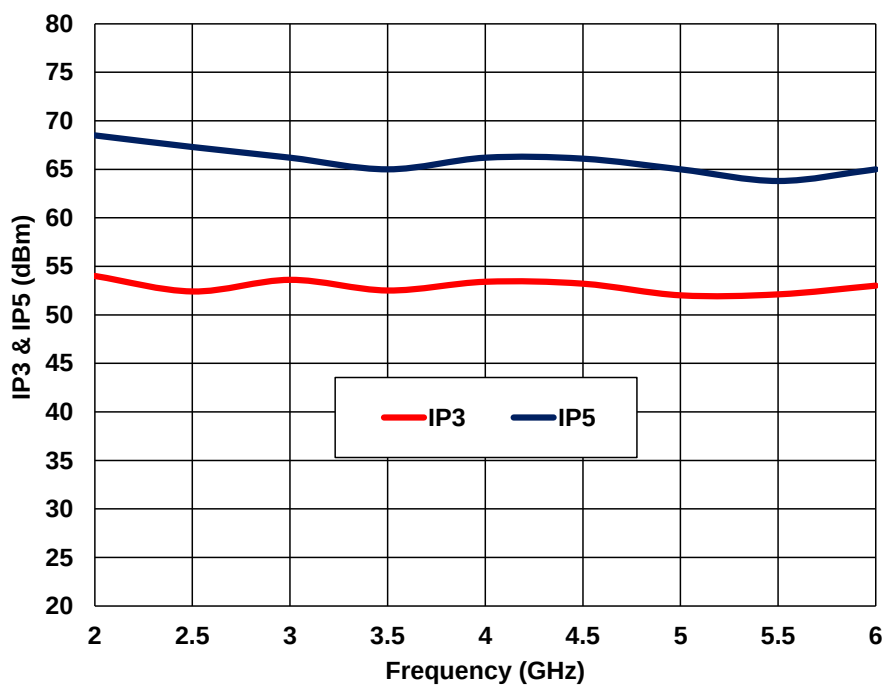
## SMALL SIGNAL DATA



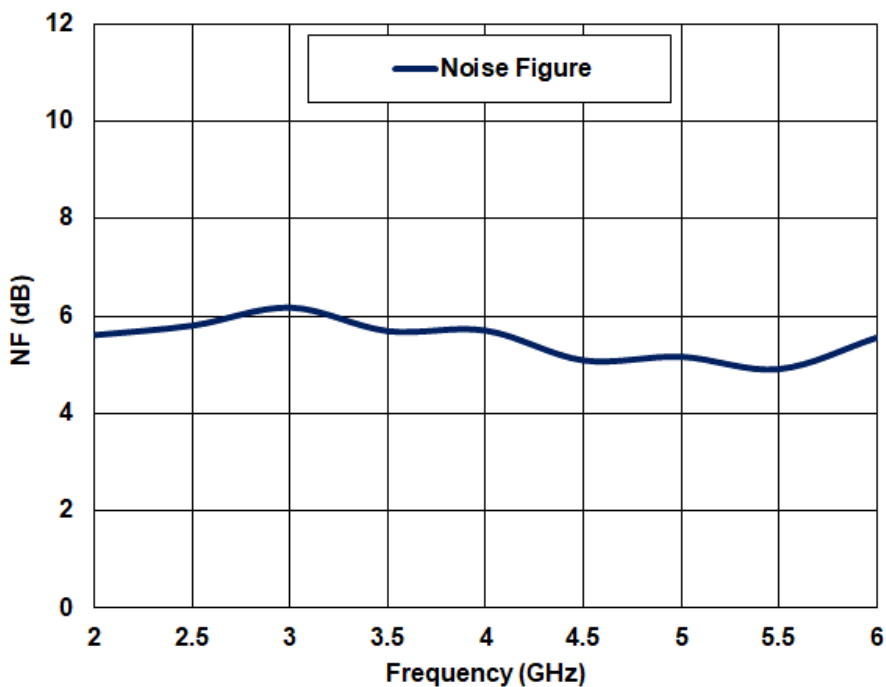
POWER DATA



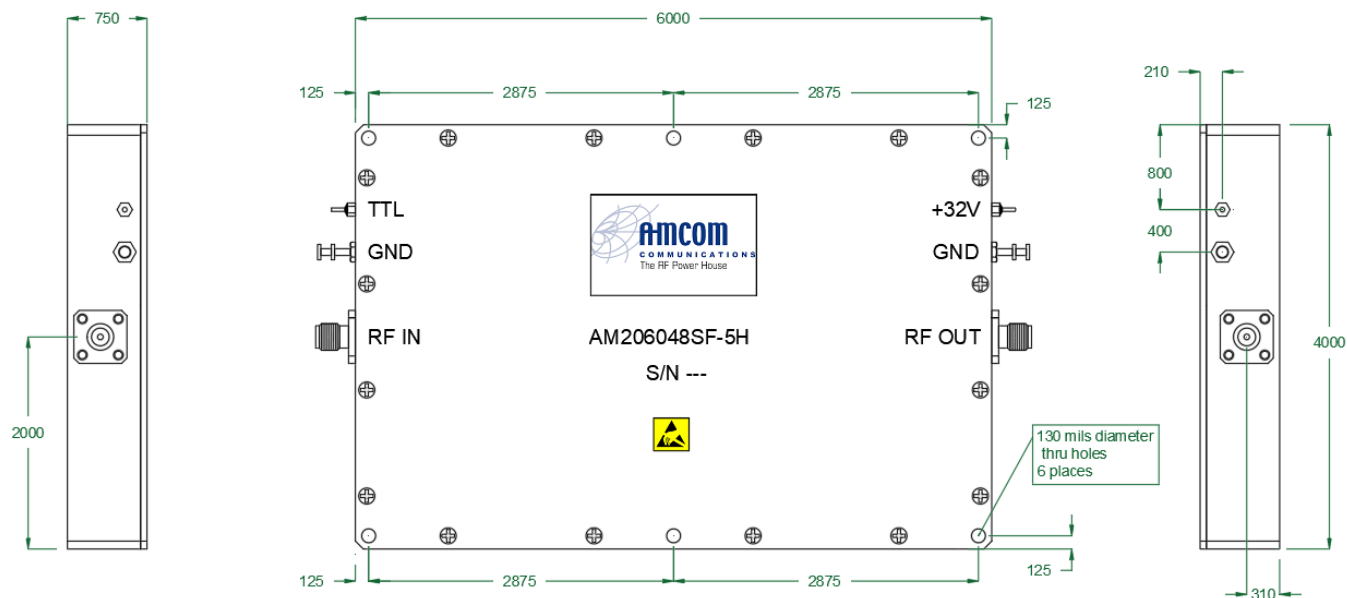
## INTERMODULATION DISTORTION



## NOISE FIGURE



## PACKAGE OUTLINE



### NOTES:

- 1- Dimensions are in mils.
- 2- Aluminum housing with silver nickel plating.
- 3- Female SMA for RF input and output.
- 4- Use a heat sink to remove heat from the module.