

## DESCRIPTION

AMCOM's AM608038SF-3H is a broadband GaN Power Amplifier module. It is designed for general purpose applications. It operates from 6GHz to 8GHz and typically delivers 8 watts (38.5dBm) of CW output power and 26dB small signal gain. It has a built-in TTL On/Off control, and a detector voltage to monitor the output power. The amplifier module has 6 screw slots for mounting to a heat sink. This amplifier module is compact and light weight at 4.0" (L) x 3.2" (W) x 0.75" (H).



## FEATURES

- Wide bandwidth from 6 to 8 GHz
- 38dBm of saturated CW output power
- High gain, 26dB
- Input / Output matched to 50 Ohms

## APPLICATIONS

- Radar
- Fixed microwave backhaul
- Instrumentation and measurements

## TYPICAL PERFORMANCE \* (Quiescent bias is +32V, $I_{ddq}$ = 0.75A)

Parameters	Minimum	Typical **	Maximum
Frequency	6.0 –8.0GHz	6.0 – 8.0 GHz	
Small Signal Gain	23 dB	26 dB	31 dB
Gain Ripple		± 2.0 dB	± 3.0 dB
$P_{1dB}$		34 dBm	
$P_{5dB}$	36 dBm	38.5 dBm	
Efficiency @ $P_{5dB}$		15%	
Noise Figure		8 dB	
IP3		45 dBm	
Input Return Loss		10 dB	
Output Return Loss		15 dB	
TTL ON/OFF Control		OFF < 1V, ON > 2V	
Detector Voltage @ $P_{out}$ =37dBm		1V	

\* Notes:

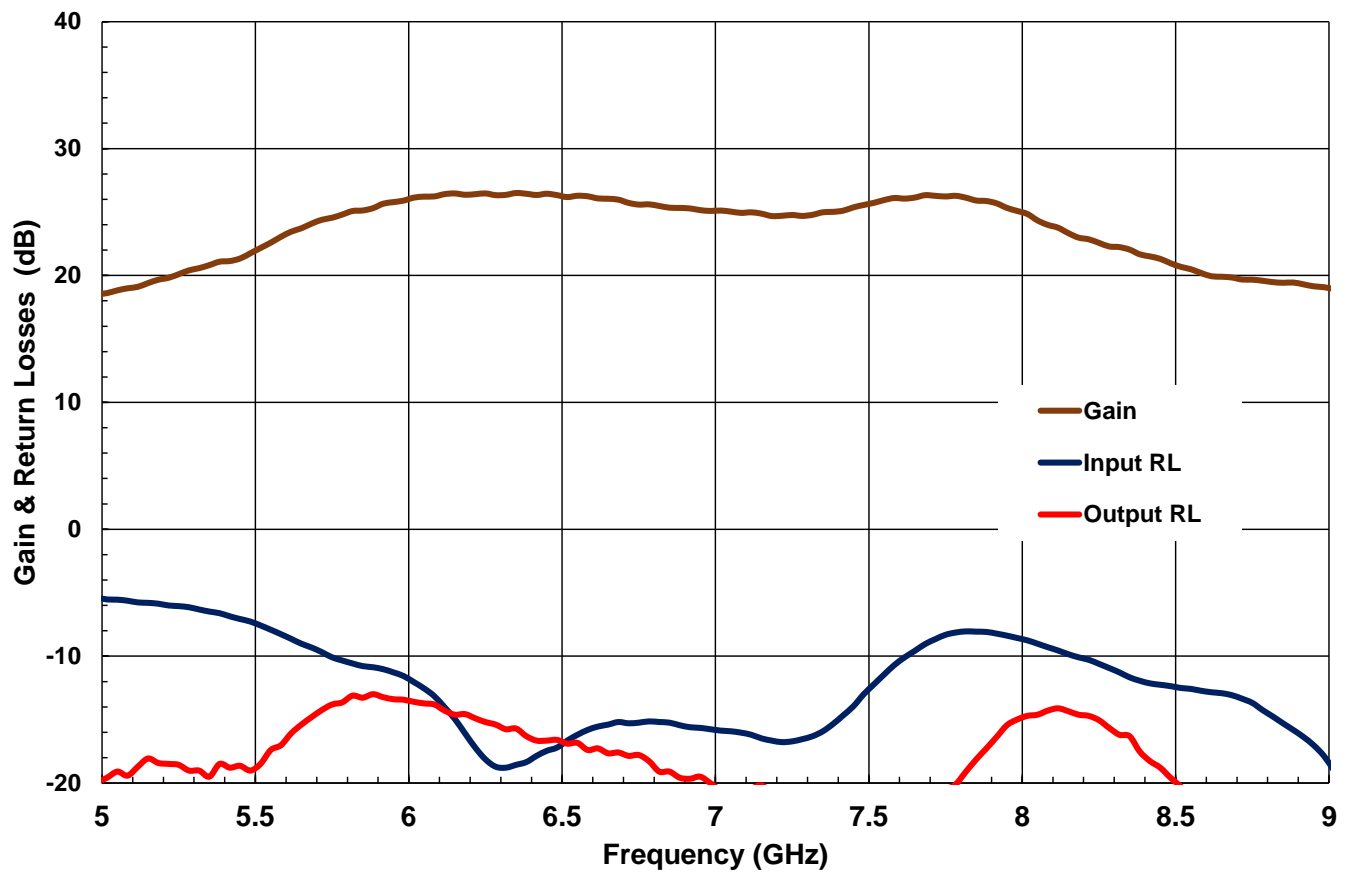
1- Specifications are subject to change without notice.

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

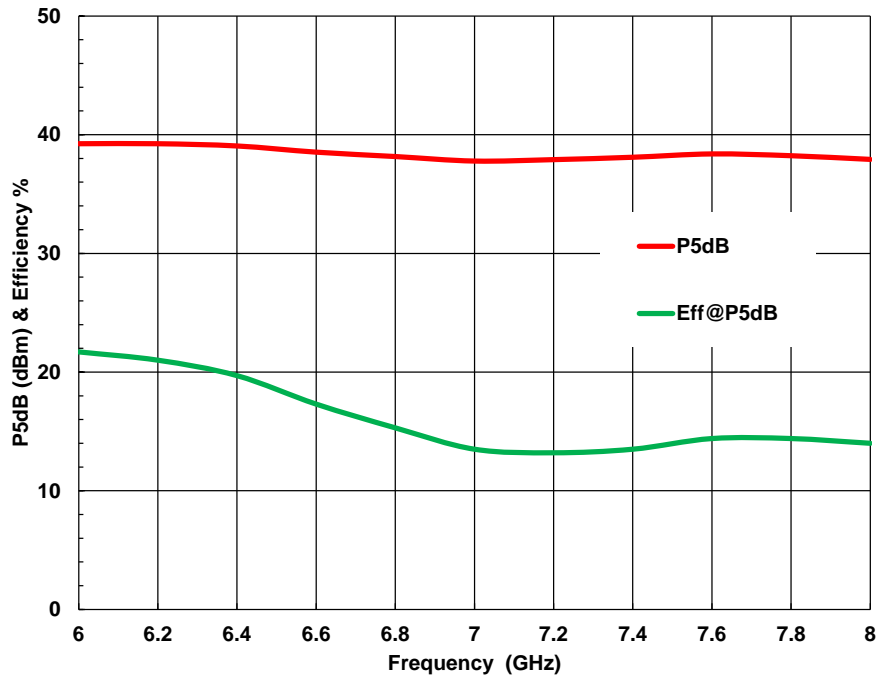
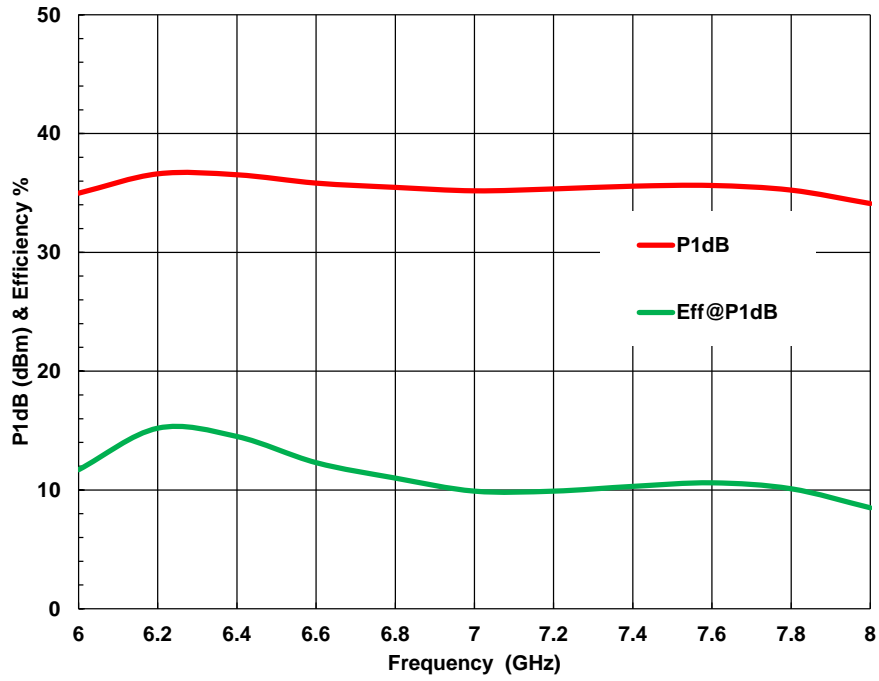
**ABSOLUTE MAXIMUM RATING**

Parameters	Symbol	Rating
Drain source voltage	$V_{ddq}$	40V
Continuous dissipation at 25°C	$P_t$	50W
Operating temperature	$T_{op}$	-40°C to +85°C
Storage temperature	$T_{sto}$	-55°C to +135°C

**SMALL SIGNAL DATA**

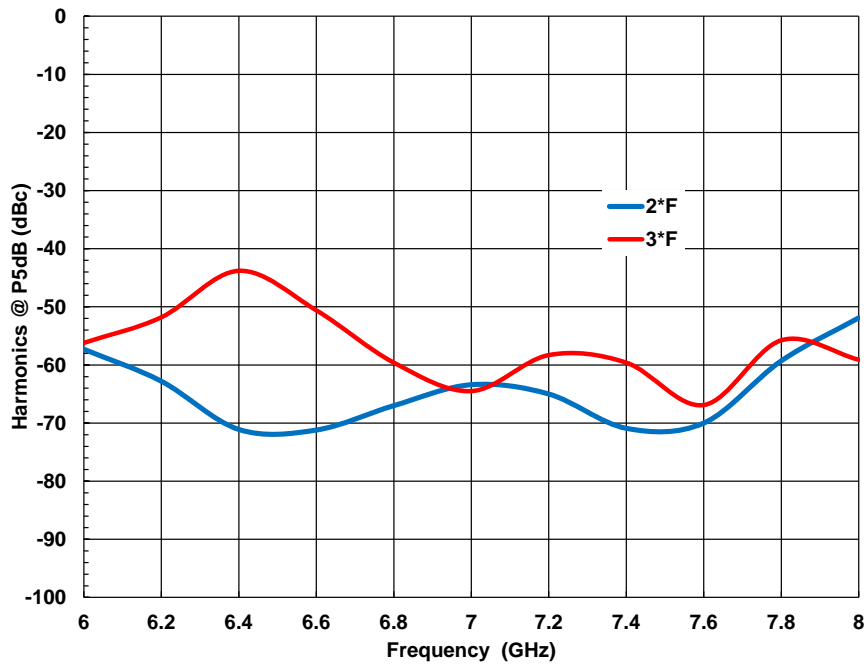
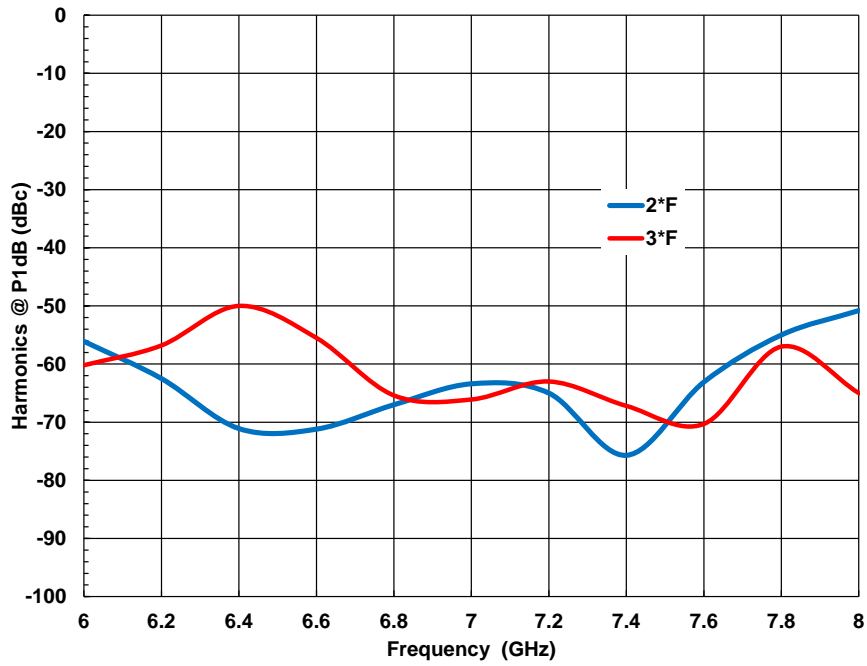


POWER DATA \*

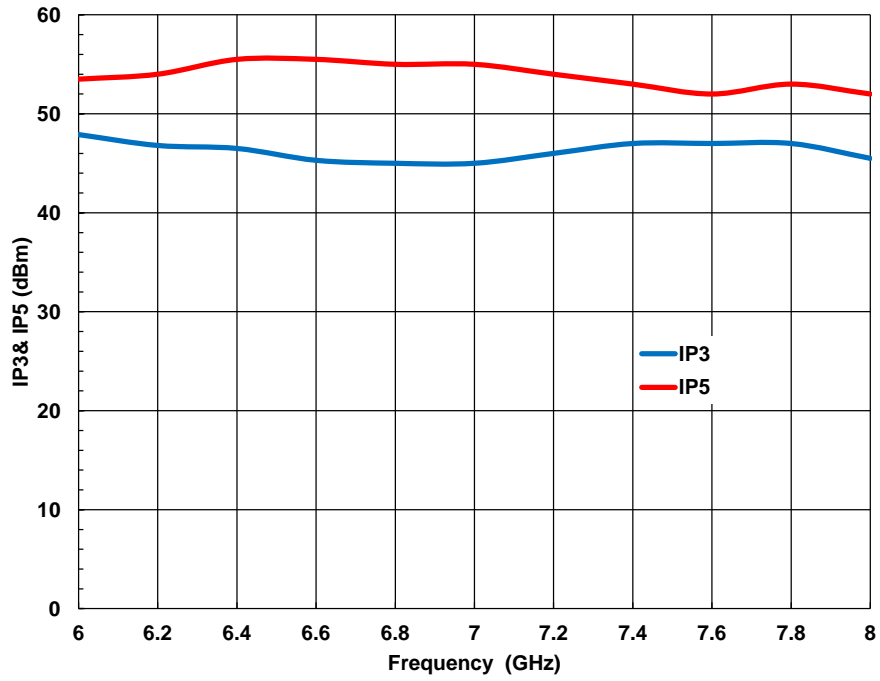


\* Data shown is for  $V_{dd}=+32V$ ,  $I_{ddq}=0.75A$

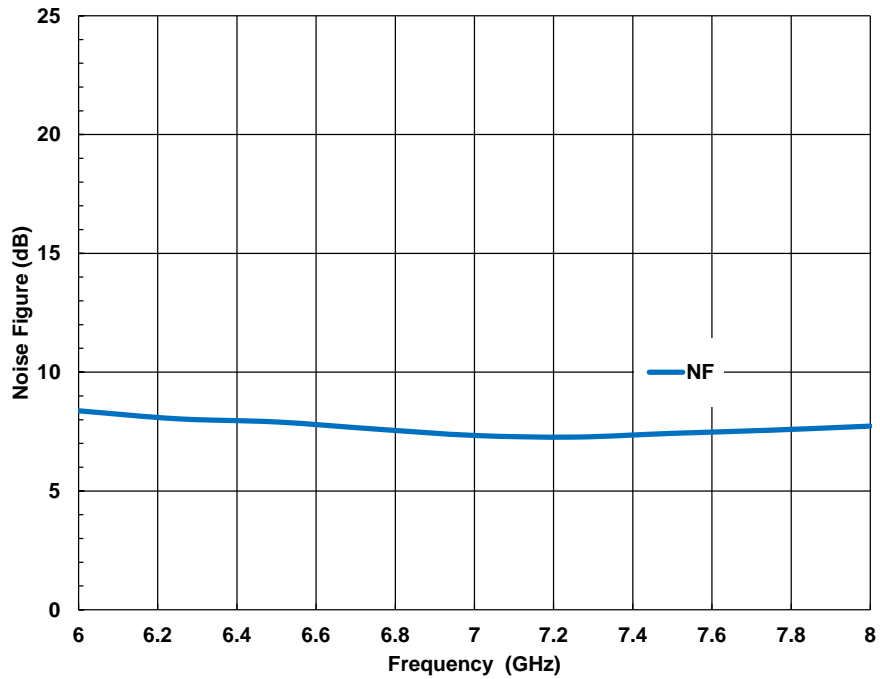
HARMONICS



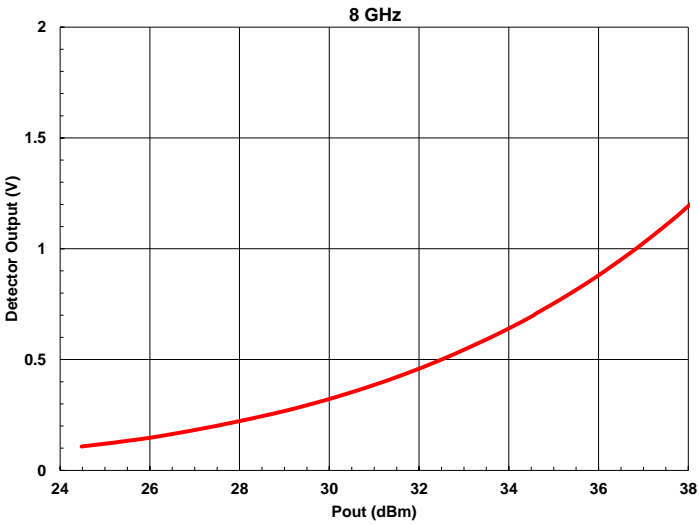
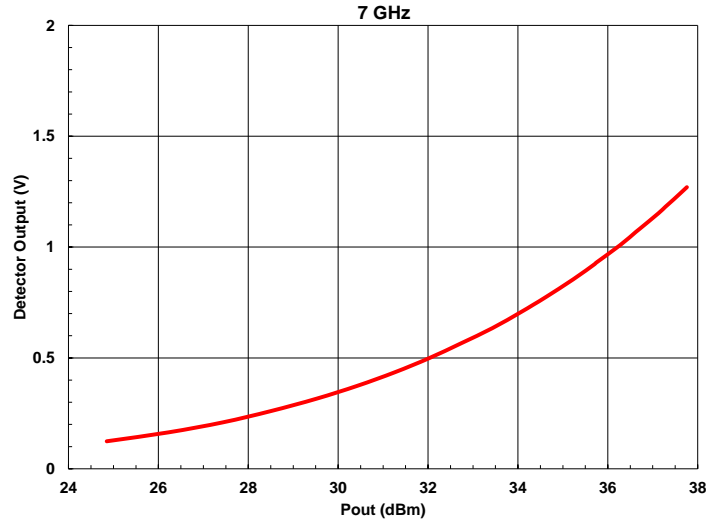
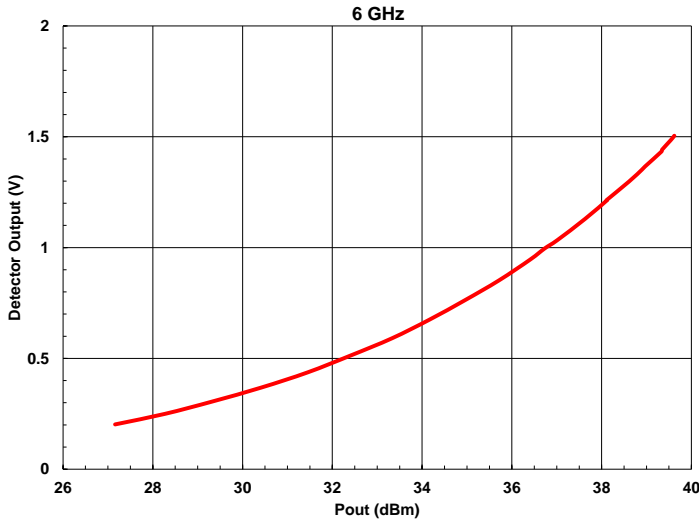
INTERMODULATION DISTORTION



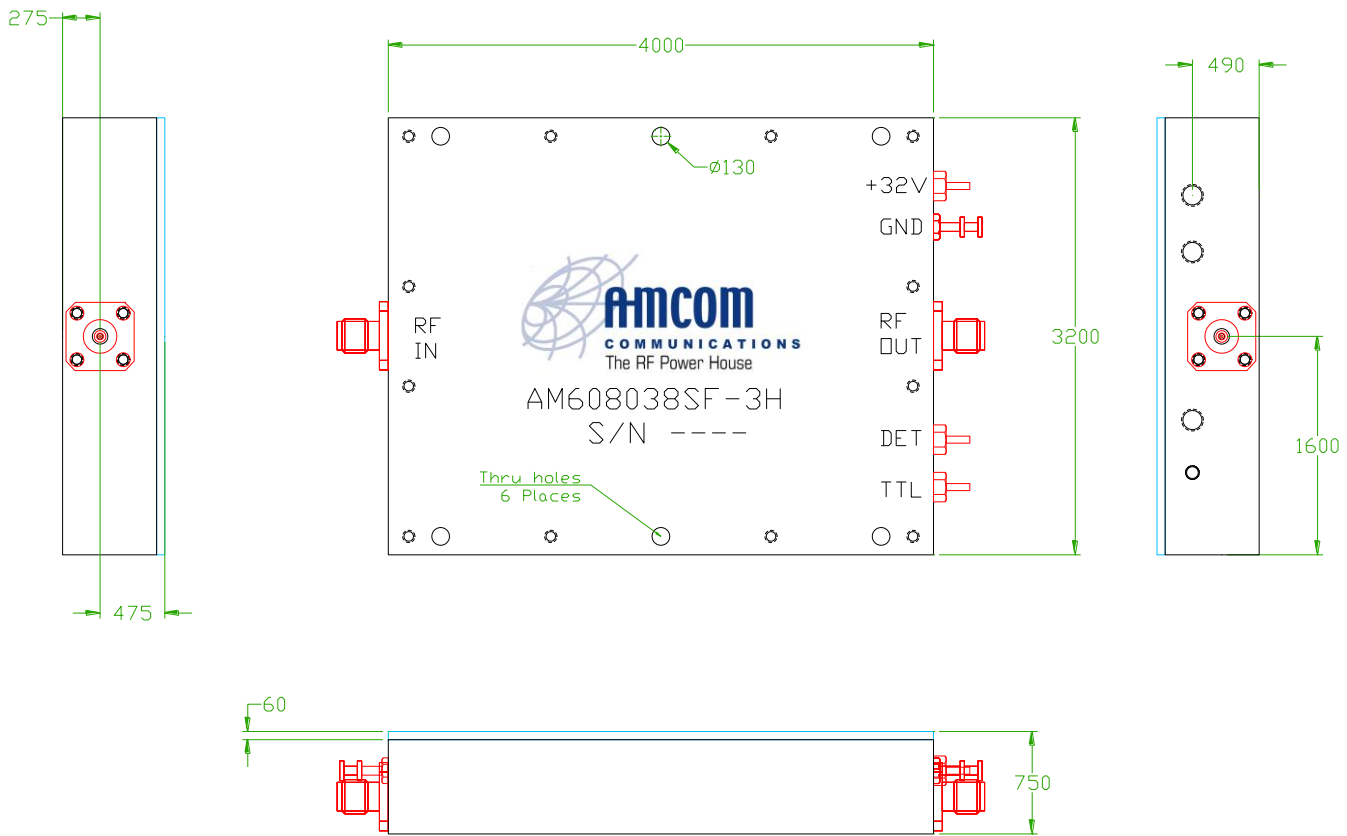
NOISE FIGURE



DETECTOR VOLTAGE LEVEL



PACKAGE OUTLINE



NOTES:

- 1- Use a heat sink to remove heat from the package bottom.
- 2- Female SMA for RF input and output.
- 3- Dimensions in mils.