

## DESCRIPTION

AMCOM's AM206545SF-3H is a broadband GaN Power Amplifier module. AM206545SF-3H is a wideband power amplifier designed for general purpose applications. It operates from 2GHz to 6.5GHz and typically delivers 30 watts (45dBm) of CW output power and 28dB 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 4" (L) x 3.08" (W) x 0.56" (H) and 8.5oz (240g).



## FEATURES

- Wide bandwidth from 2 to 6.5GHz
- 45dBm of saturated CW output power
- High gain, 28dB
- Input / Output matched to 50 Ohms

## APPLICATIONS

- Radar
- Fixed microwave backhaul
- Instrumentation and measurements

## TYPICAL PERFORMANCE \* (Quiescent bias is +32V, I<sub>ddq</sub>= 2.5A)

Parameters	Minimum	Typical **	Maximum
Frequency	2.5 –6.0GHz	2.0 – 6.5 GHz	
Small Signal Gain	25 dB	28 dB	33 dB
Gain Ripple		± 2.0 dB	± 3.0 dB
P <sub>1dB</sub>		38.5 dBm	
P <sub>3dB</sub>	42 dBm	45 dBm	
Efficiency @ P <sub>3dB</sub>		20%	
Noise Figure		12 dB	
IP3		47dBm	
Input Return Loss		> 15 dB	
Output Return Loss		> 8 dB	
Thermal Resistance		1 °C/W	

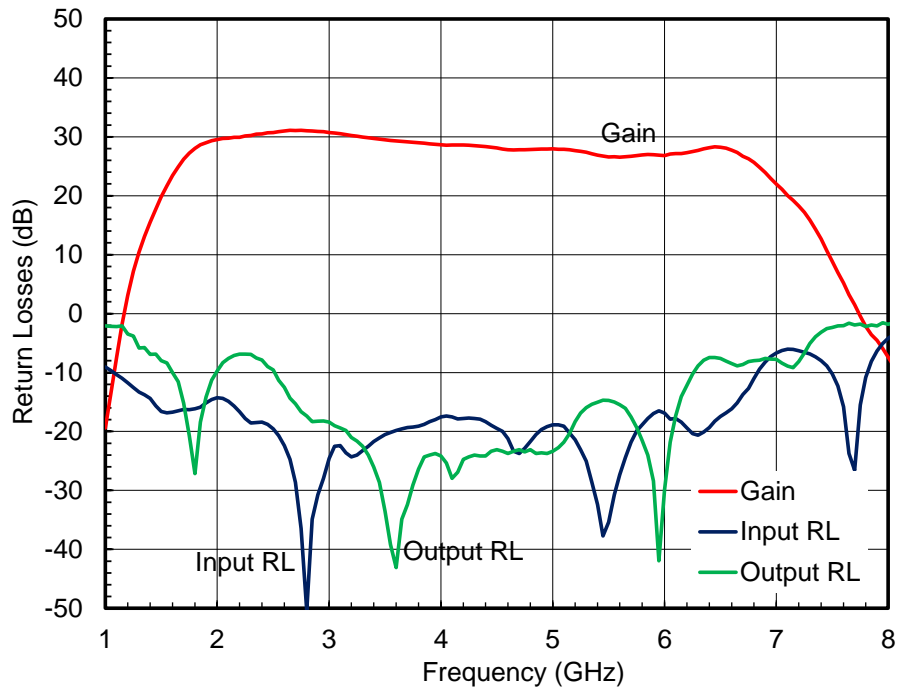
\* Notes:

- 1- Specifications are subject to change without notice.
- 2- Proper heat sink should be used to remove heat from bottom of package

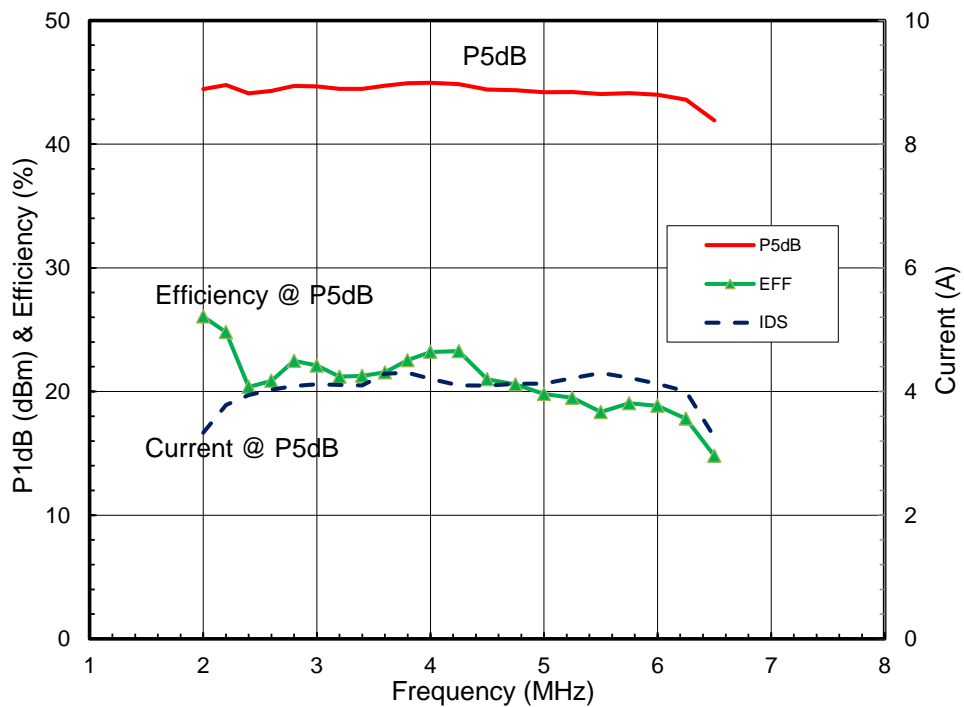
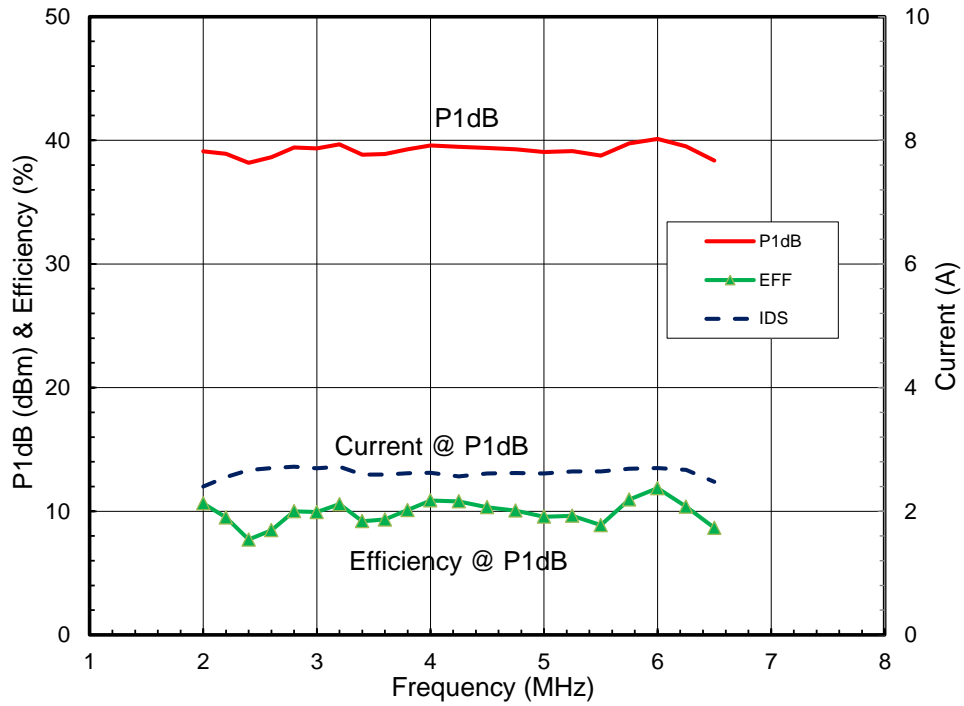
**ABSOLUTE MAXIMUM RATING**

Parameters	Symbol	Rating
Drain source voltage	$V_{dd1,2}$	40V
Continuous dissipation at 25°C	$P_t$	200W
Operating temperature	$T_{op}$	-40°C to +85°C
Storage temperature	$T_{sto}$	-55°C to +135°C

**SMALL SIGNAL DATA**

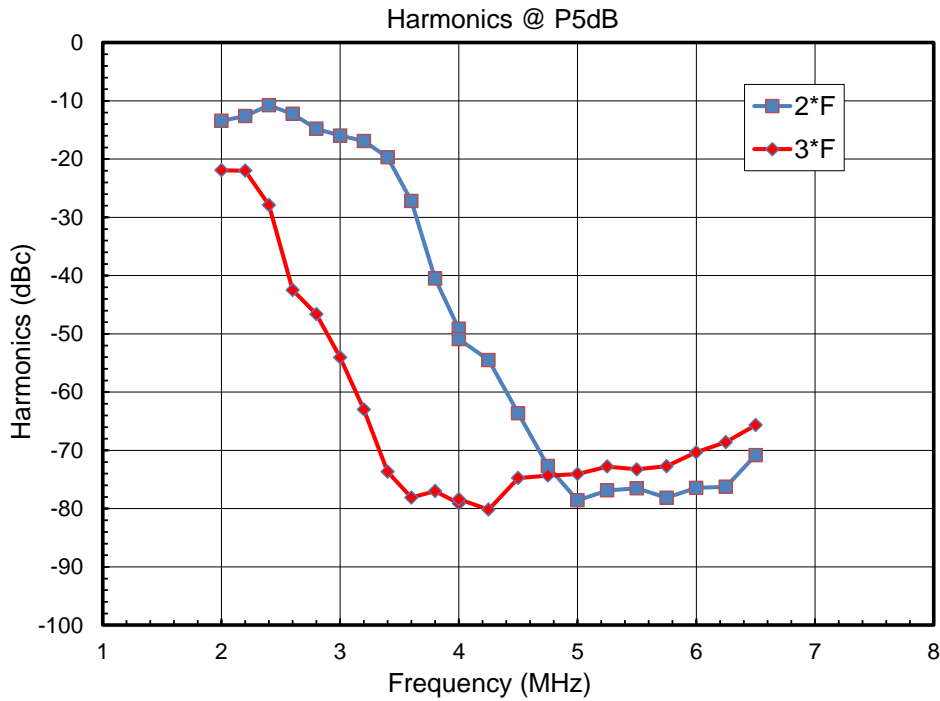
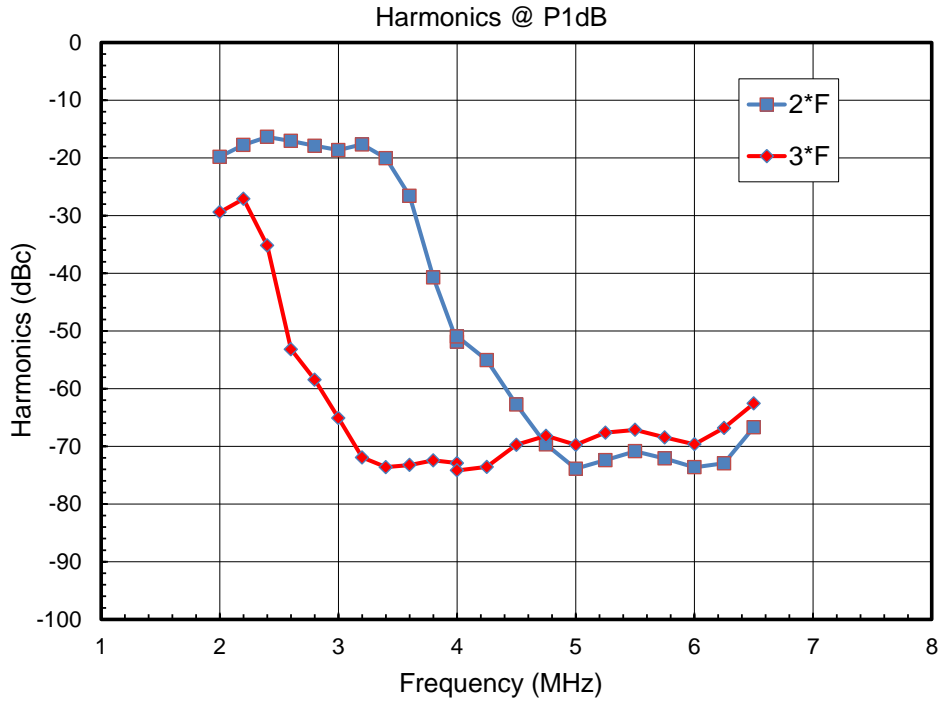


POWER DATA \*

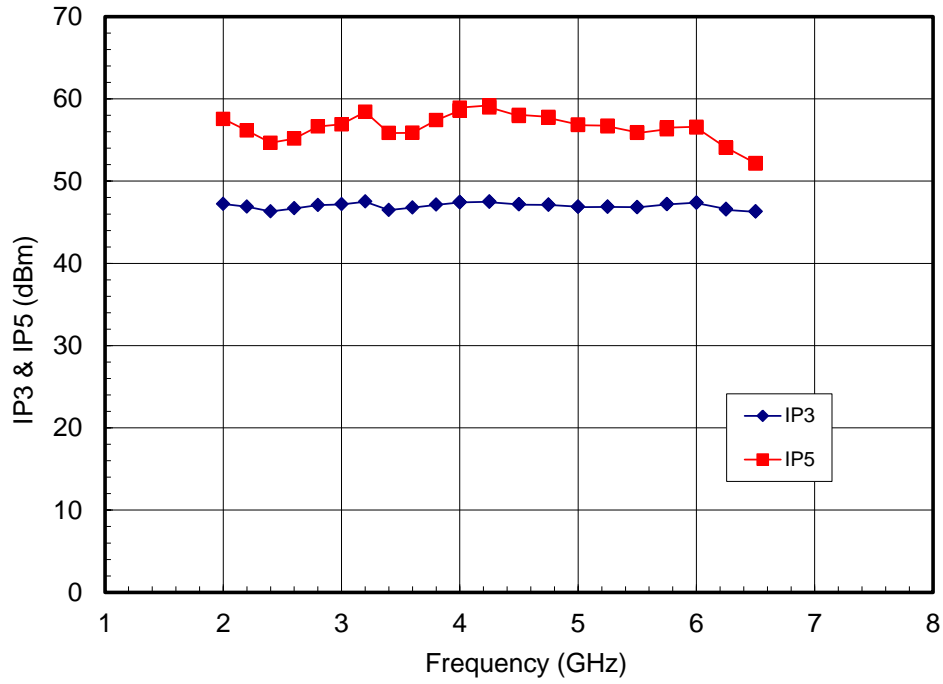


\* Data shown is for  $V_{dd}=+32V$ ,  $I_{ddq}=2.5A$

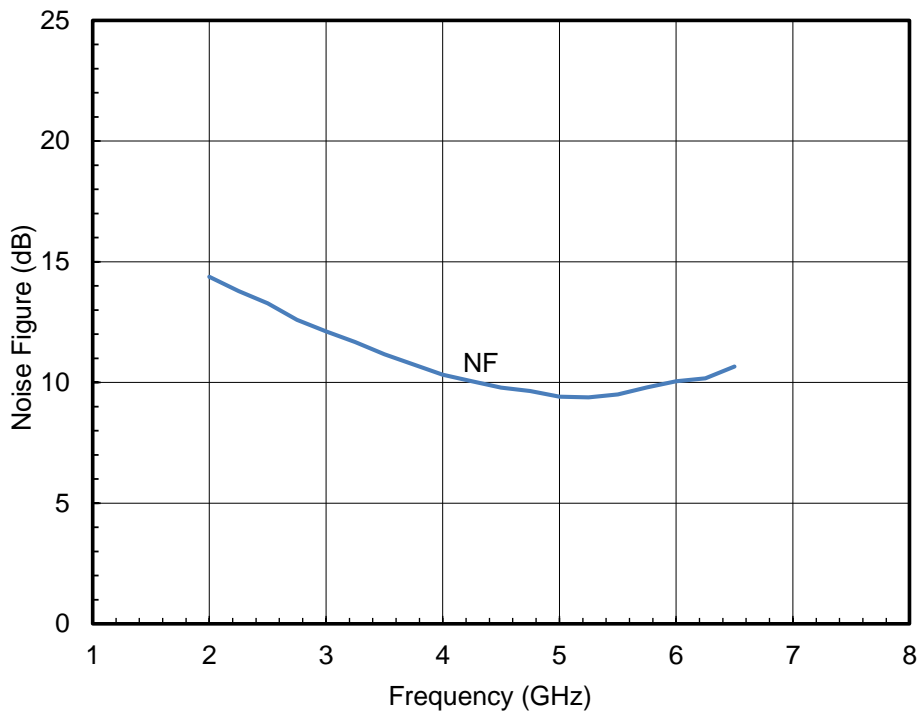
HARMONICS



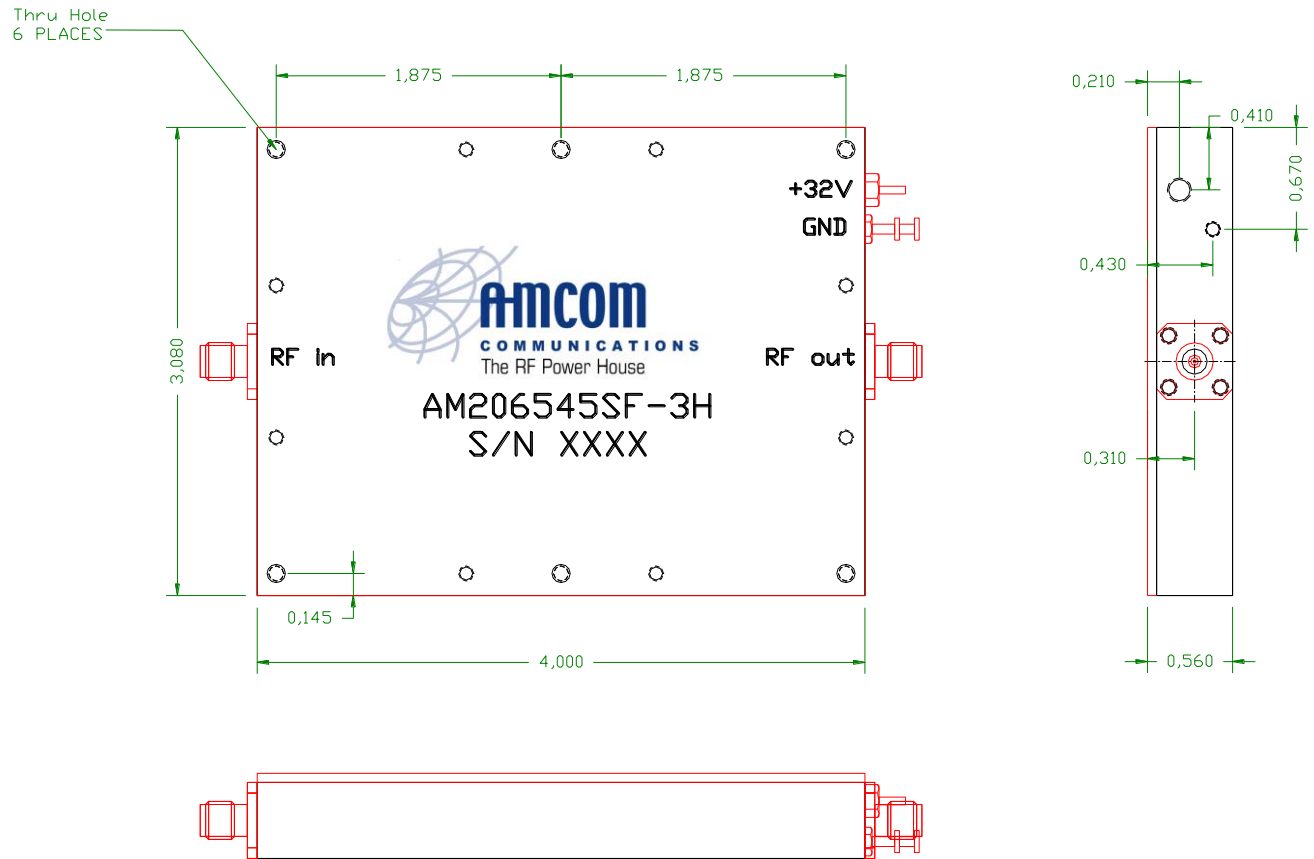
INTERMODULATION DISTORTION



NOISE FIGURE



PACKAGE OUTLINE



NOTES:

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