

DESCRIPTION

AMCOM's AM08513241-3H is a broadband GaAs Power Amplifier module. It is designed for general purpose applications. It operates from 8.5GHz to 13.2GHz and typically delivers 14 watts (41.5dBm) of CW output power for frequency band (9 to 11GHz) and 8 watts (39dBm) for frequency band (11.5 to 13GHz) with 25dB small signal gain. The amplifier module has 6 screw slots for mounting to a heat sink, and operates using a single +12V to 15V supply. This amplifier module is compact at 6.0" (L) x 3.6" (W) x 0.75" (H).



FEATURES

- Wide bandwidth from 8.5 to 13.2 GHz
- 41.5dBm (9 to 11GHz) , 39.5dBm (11.5 to 13GHz) of saturated CW output power
- Gain, 25dB
- Input / Output matched to 50 Ohms

APPLICATIONS

- Radar
- Fixed microwave backhaul
- Instrumentation

TYPICAL PERFORMANCE * (Quiescent bias is (+12V to +15V), $I_{dq} = 6.2A$)

Parameters	Minimum	Typical **	Maximum
Frequency		8.5 to 13.2 GHz	
Small Signal Gain	21 dB	25 dB	30 dB
Gain Ripple		± 2.0 dB	
P_{1dB} @ (9 to 11)GHz		41dBm	
P_{1dB} @ (11.5 to 13)GHz		38.5dBm	
P_{3dB} @ (9 to 11)GHz	39.5dBm	41.5dBm	
P_{3dB} @ (11.5 to 13)GHz	38dBm	39.5dBm	
I_{ds} @ P_{1dB}		8.5A	
I_{ds} @ P_{3dB}		9.5A	
Noise Figure		10 dB	
IP3 @ (9 to 11)GHz		46.5 dBm	
IP3 @ (11.5 to 13)GHz		43.5 dBm	
Harmonics (2*F @ P1dB)		-50 dBc	
Input Return Loss		10 dB	
Output Return Loss		10 dB	

* Notes:

1- Specifications are subject to change without notice.

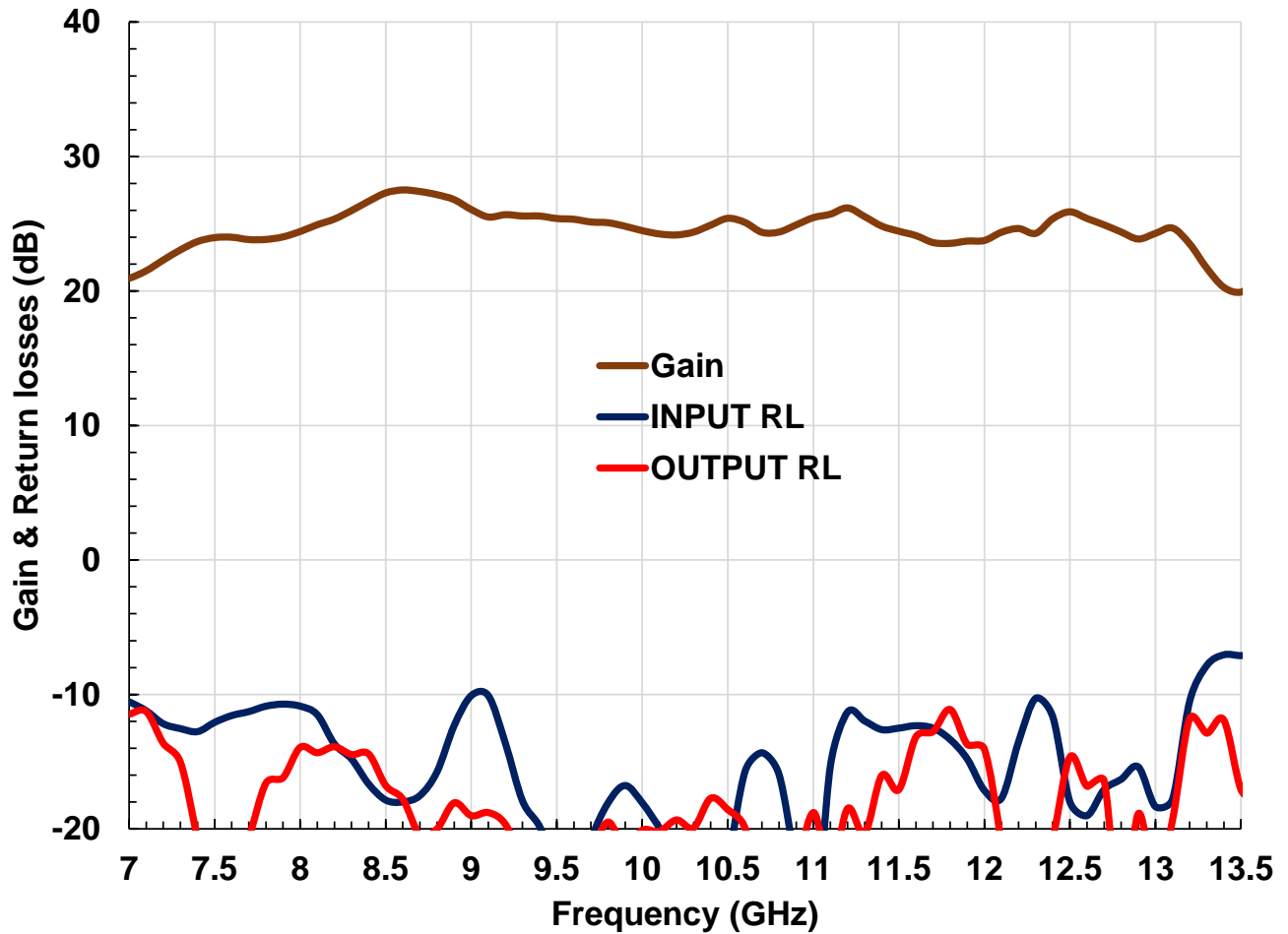
2- Proper heat sink should be used to remove heat from bottom of package

ABSOLUTE MAXIMUM RATING

Parameters	Symbol	Rating
Drain source voltage	V_{dq}	15V
Continuous dissipation at 25°C	P_t	150W
Operating temperature	T_{op}	-40°C to +85°C
Storage temperature	T_{sto}	-55°C to +135°C

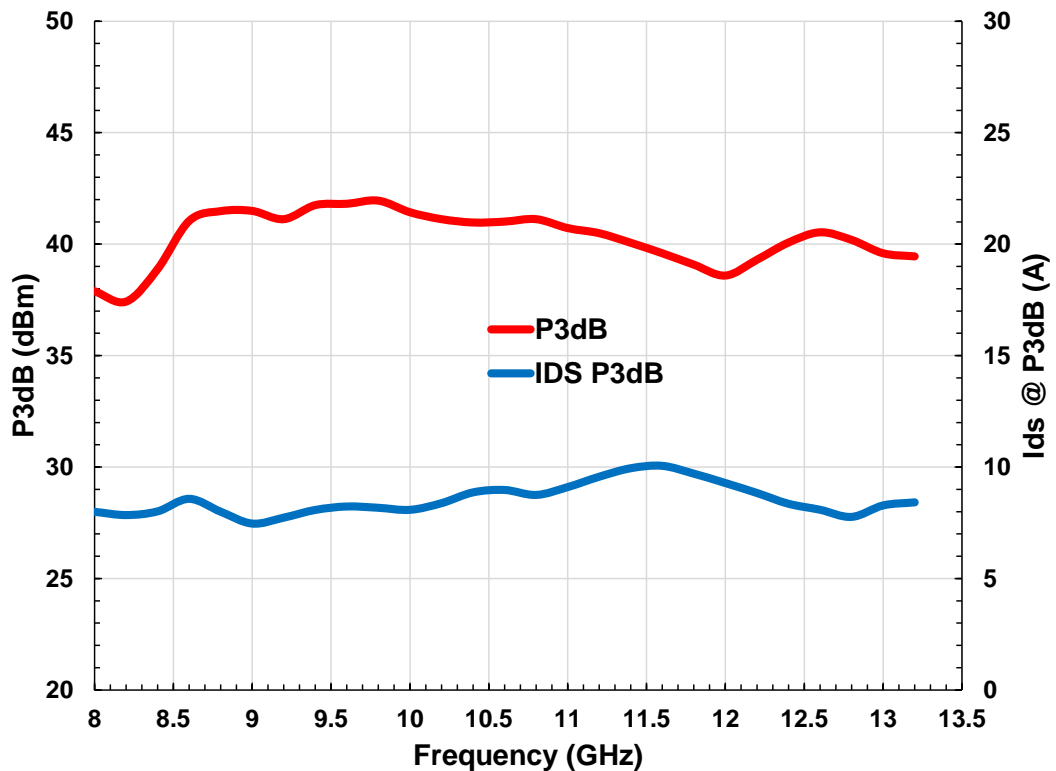
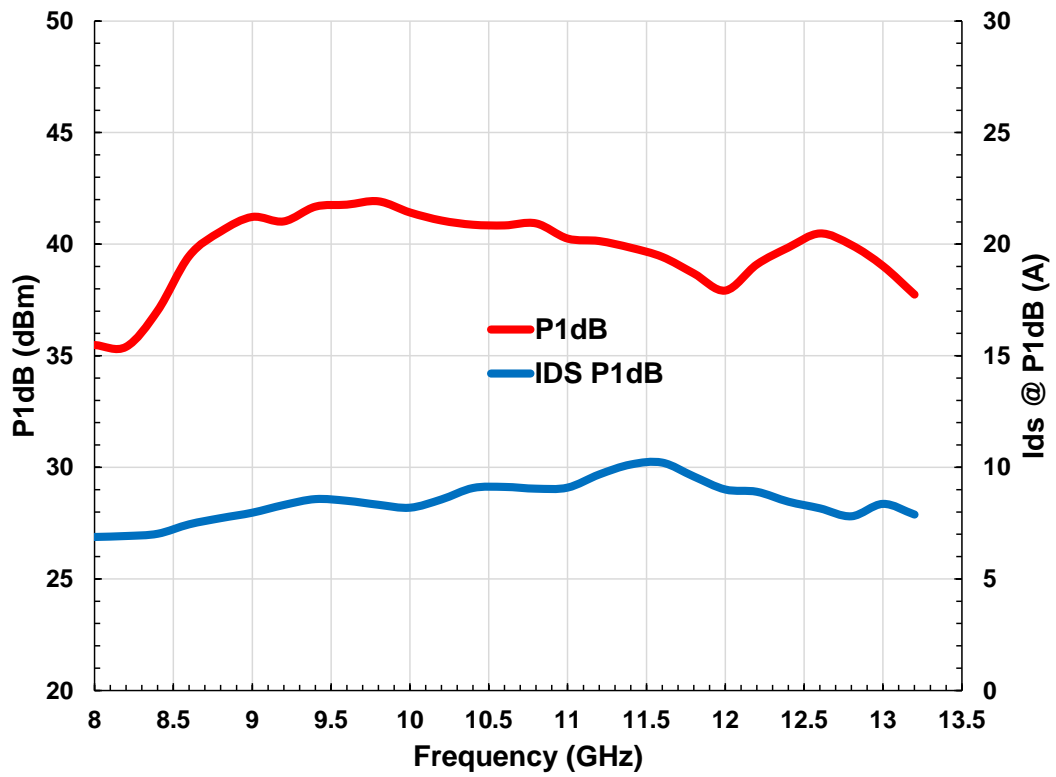
SMALL SIGNAL DATA

$V_{dq}=(12V \text{ to } 15V), I_{dq}=6.2A$

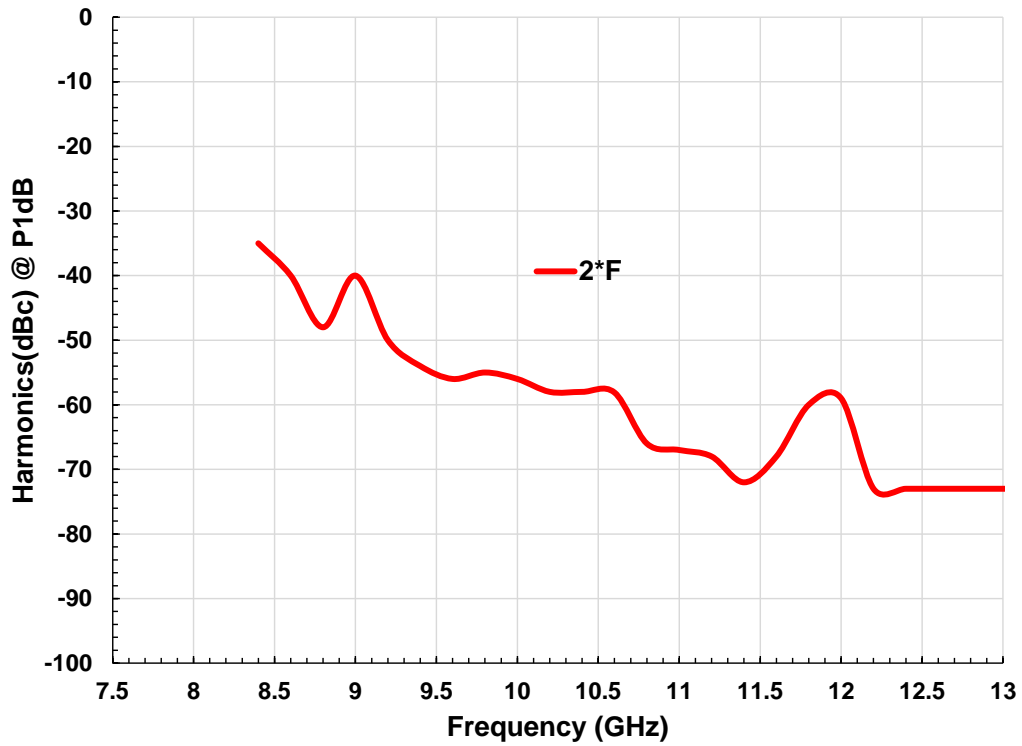


POWER DATA *

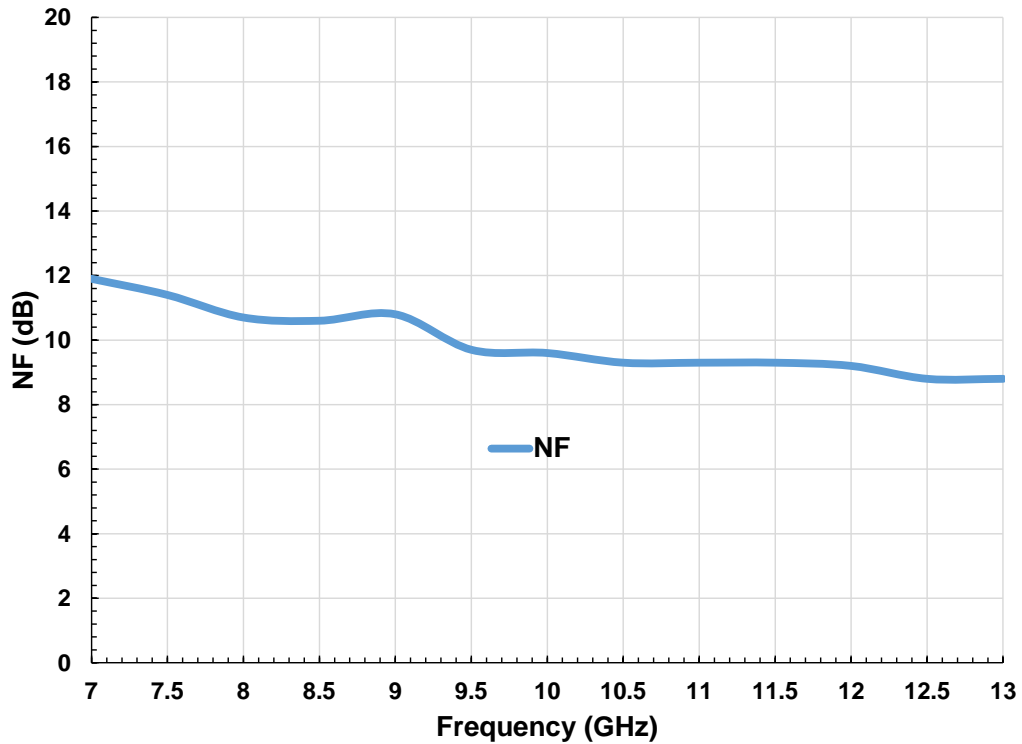
Vdq=(12V to 15V), Idq=6.2A



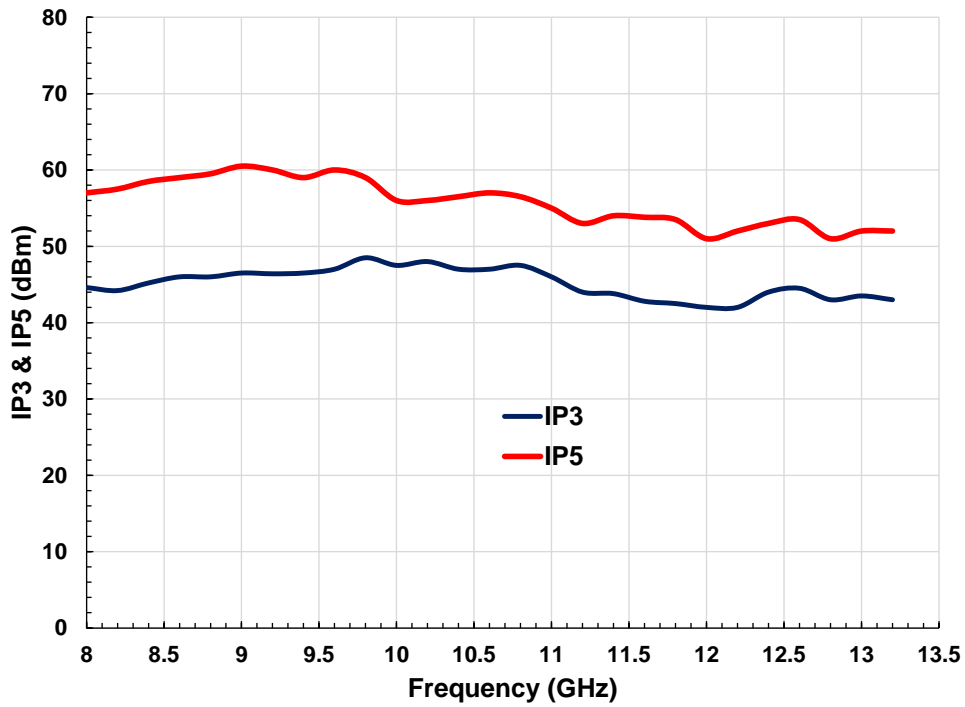
HARMONICS



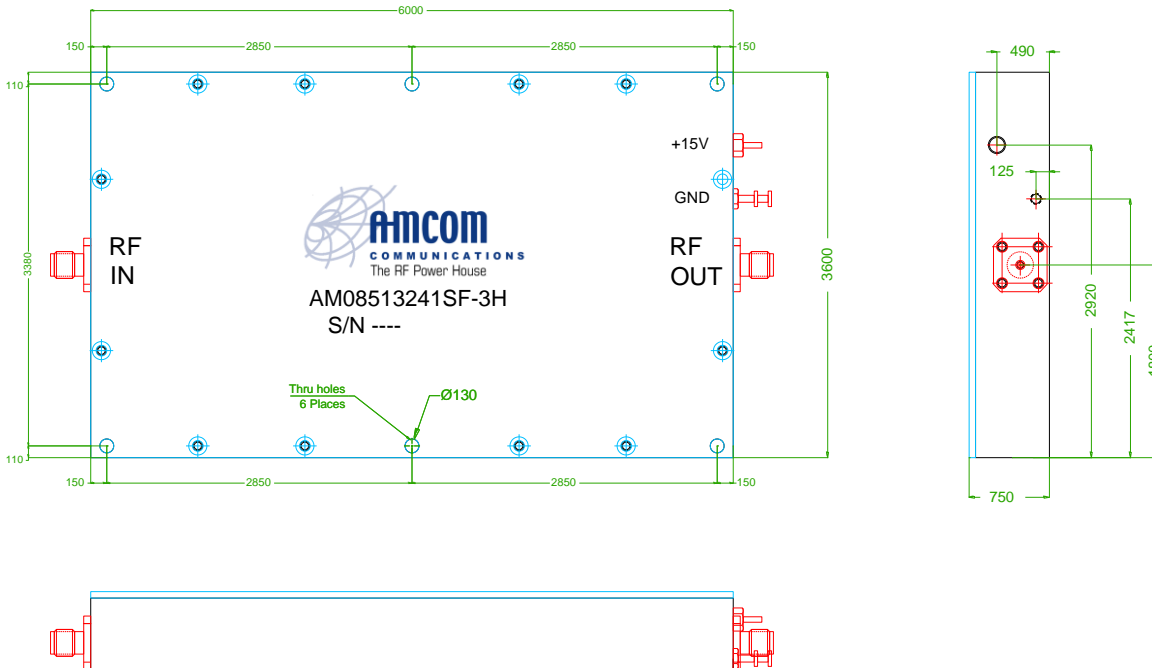
NOISE FIGURE



INTERMODULATION DISTORTION



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