



DESCRIPTION

AM203043SF-4H is a wideband power amplifier designed for wireless communications. It operates from 2GHz to 3GHz and typically delivers 20W (43dBm) CW P1dB and 35dB small signal gain. The module requires a single +15V DC voltage. The DC current is 6.5A at 20W output power. The module has a built-in detector to monitor the output power. It is hermetically sealed and it weighs 13oz.

FEATURES

- Bandwidth from 2 to 3GHz
- High output power, P1dB = 42dBm
- High gain, 35 dB
- +15V DC single bias with TTL Control
- Aluminum Chassis
- Output Power Detector

APPLICATIONS

- ISM Band
- Wireless Internet Access
- WiMax Repeater
- Two Way Radio

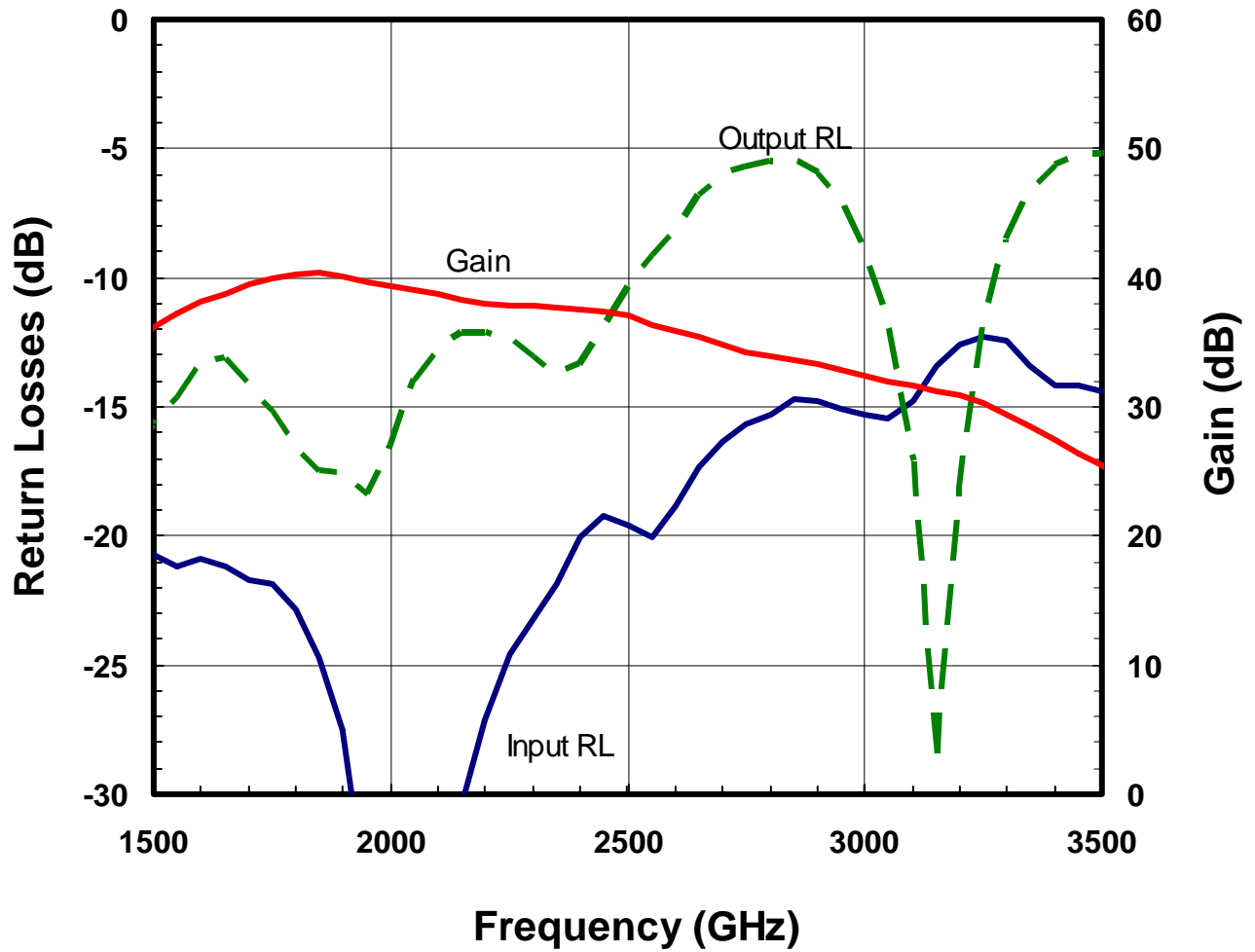
PERFORMANCE ($V_{dd} = +15V$, $I_{dq} = 5 A$, $T_a = 25^{\circ}C$)

Parameters	Specifications)			Unit
	Minimum	Typical	Maximum	
Frequency	2.2 – 2.6	2.0 – 3.0		GHz
Gain (Small signal)	35	37		dB
Gain Ripple		±1	±3	dB
P1dB	42	44		dBm
P3dB	43	45		dBm
Noise Figure		10	12	dB
Input VSWR		1.5:1	2.0:1	ratio
Output VSWR		2.0:1	3.0:1	ratio
Output Detector @ 45dBm output		6V		

ABSOLUTE MAXIMUM RATING

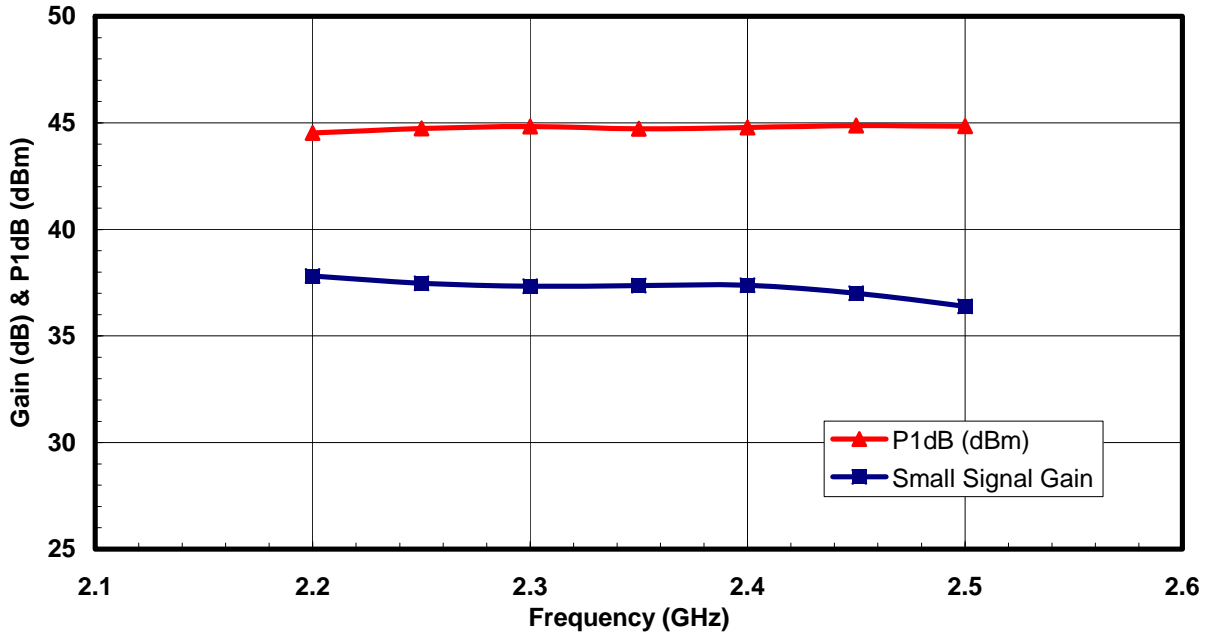
Parameters	Symbol	Rating
Supply voltage	V_{dd}	20V
Continuous dissipation at room temperature	P_t	90W
Operating ambient temp	T_a	-45°C to +85°C
Storage temperature	T_{sto}	-60°C to +150°C

SMALL SIGNAL PARAMETERS

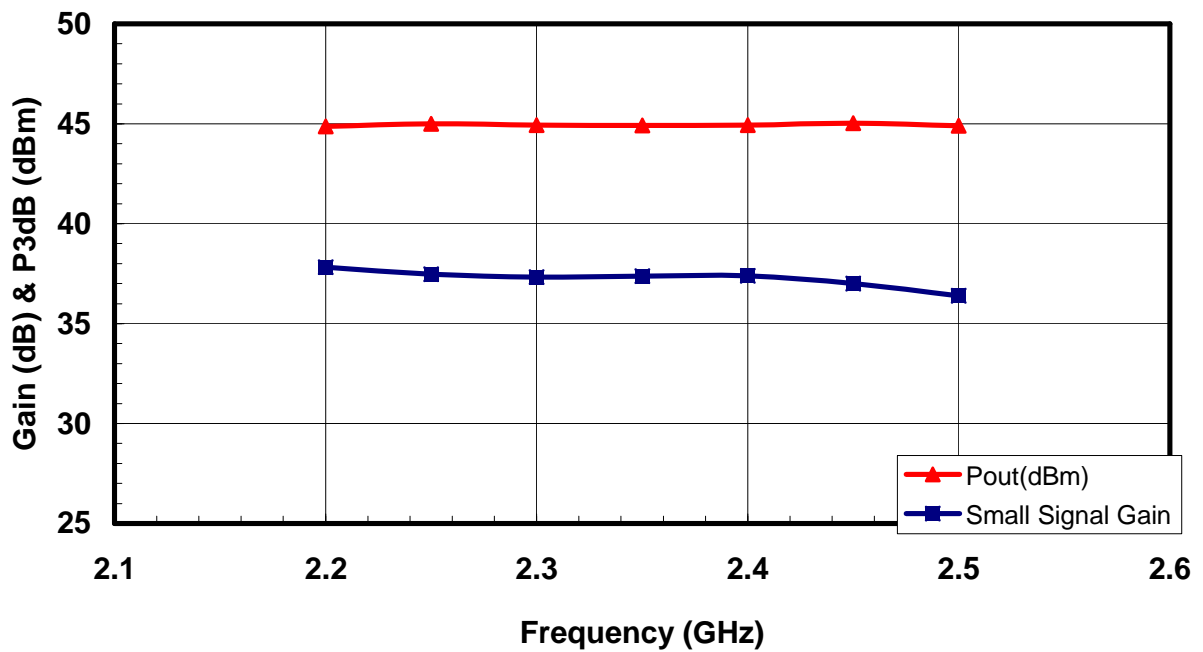


POWER DATA

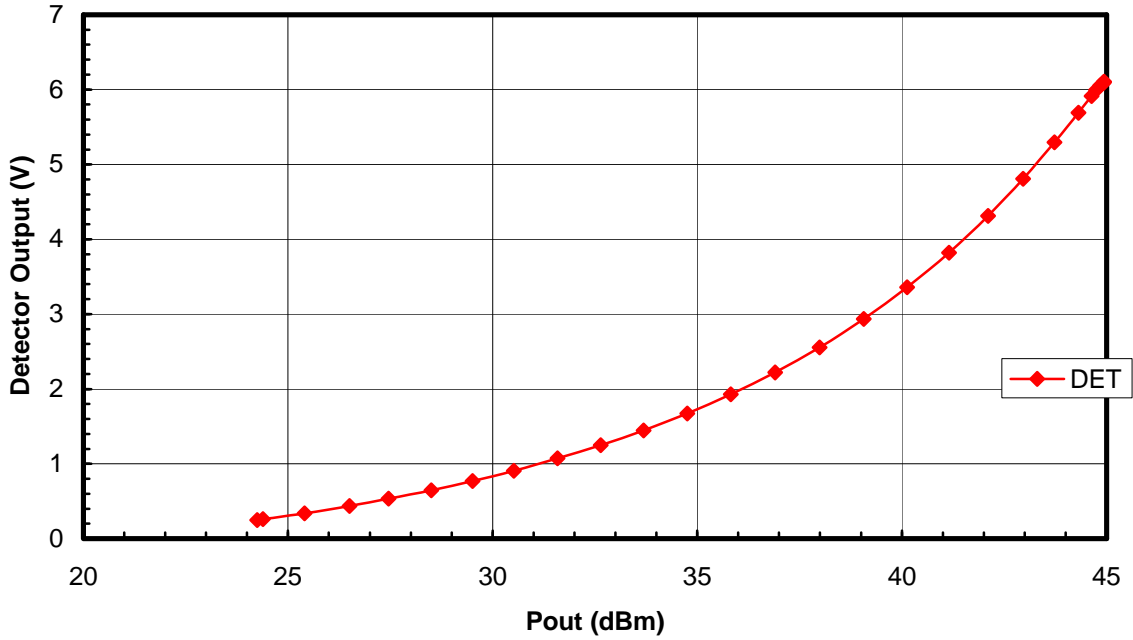
P1dB vs Frequency



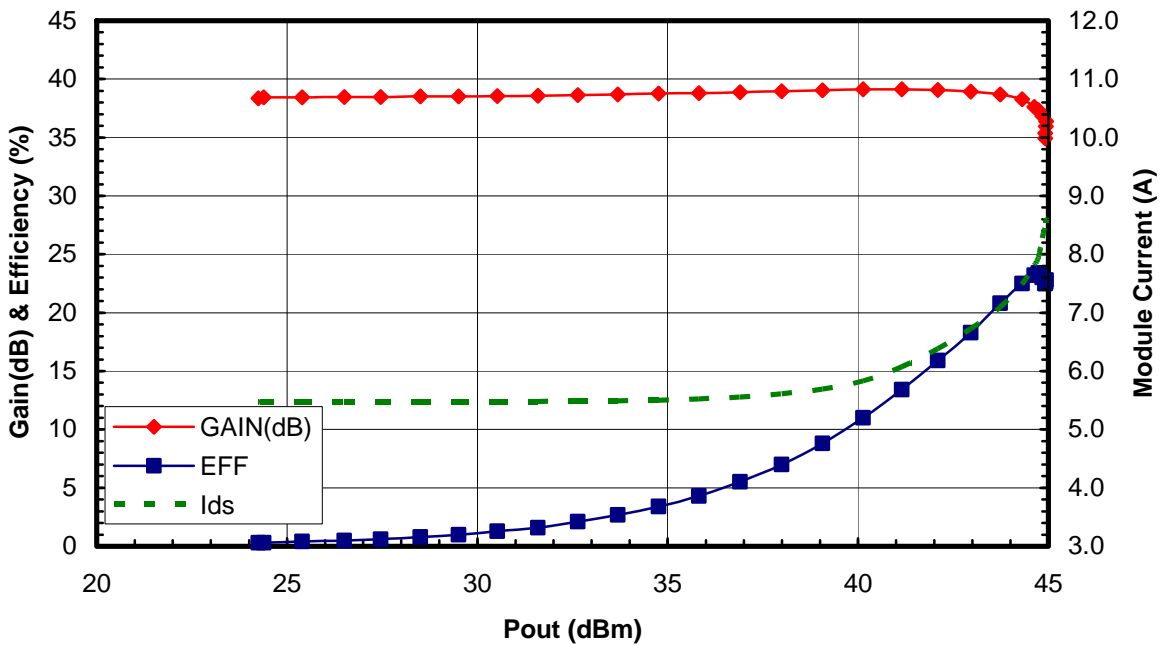
P3dB vs Frequency



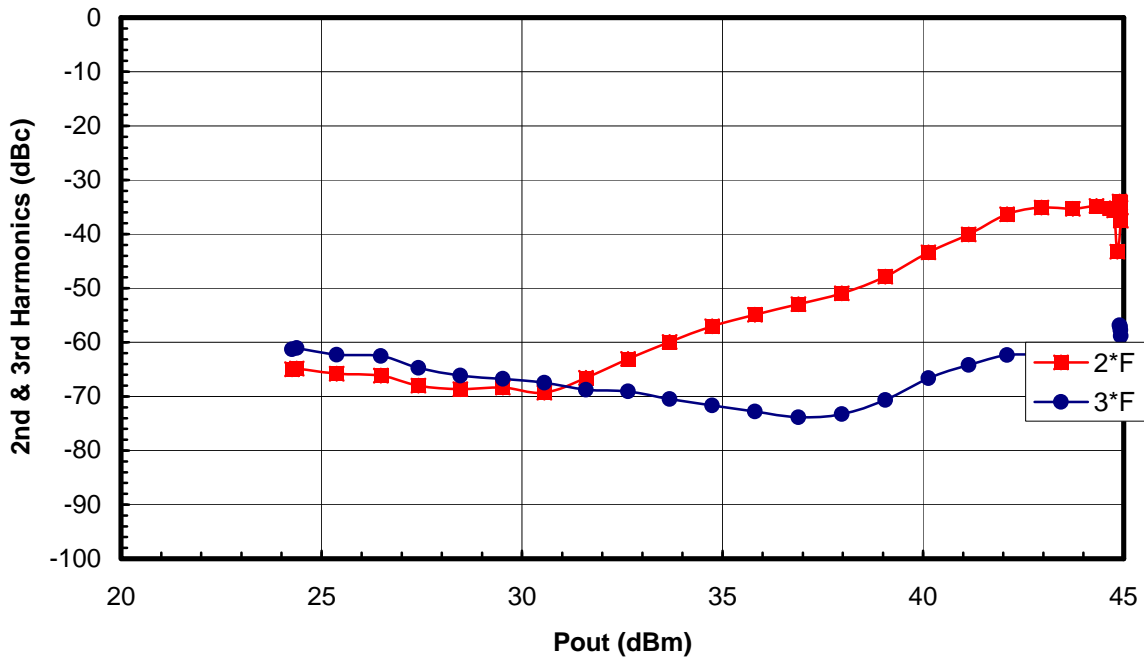
2.35GHz



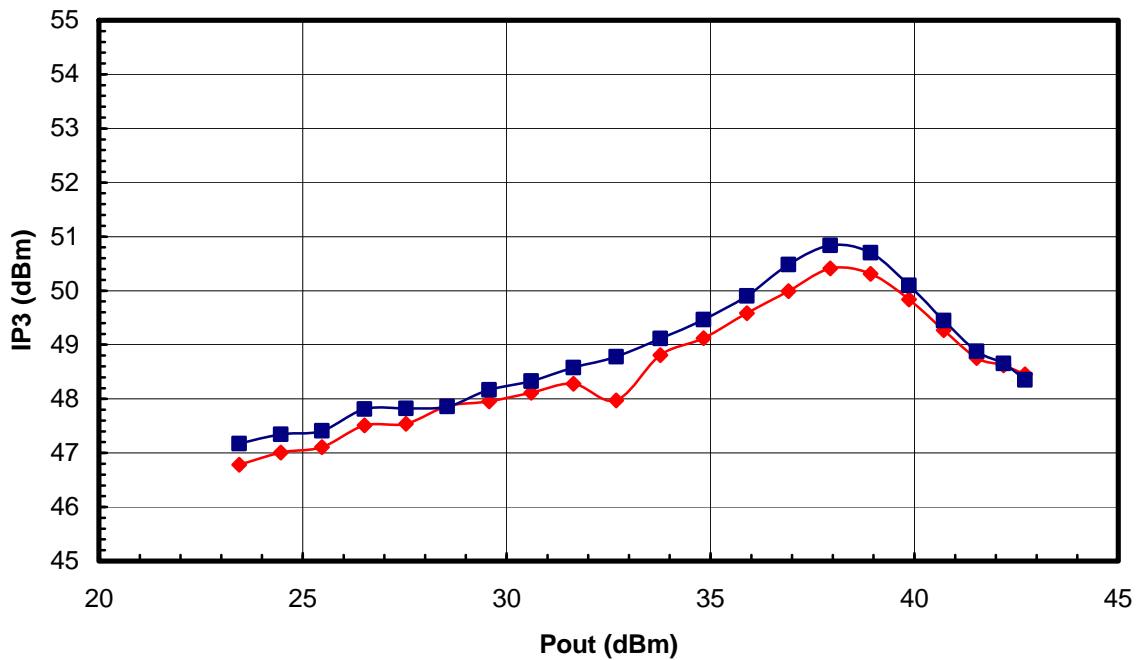
2.35GHz



2.35GHz

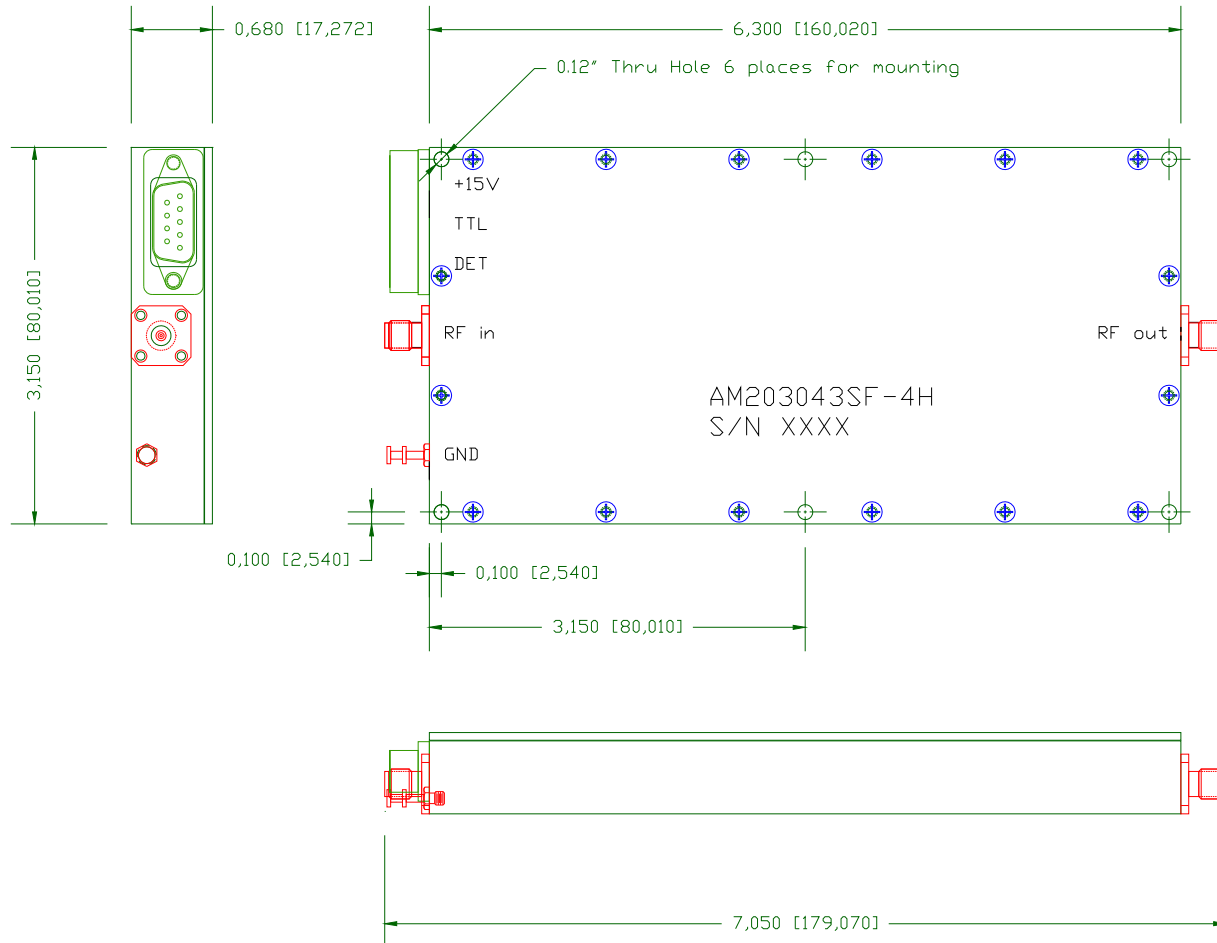


2.35GHz



PACKAGE OUTLINE

The package dimensions are 6.300" (L) x 3.150" (W) x 0.680" (H). The module needs a single +15V / 5.0A DC supply. It has SMA connectors for RF input and output, and D-Sub 9-pin connector for +15V, ground, output power detector, and TTL control for ON/OFF operation (TTL Low for PA ON). Module has a protection mechanism that turns the PA off if base temperature is above +85°C.



Outline of PA Module